```
=> file reg
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STRUCTURE FILE UPDATES:   17 MAY 2005  HIGHEST RN 850605-77-5
DICTIONARY FILE UPDATES:  17 MAY 2005  HIGHEST RN 850605-77-5

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**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> e 9001-92-7
E1            1     9001-90-5/RN
E2            1     9001-91-6/RN
E3            1 --> 9001-92-7/RN
E4            1     9001-93-8/RN
E5            1     9001-94-9/RN
E6            1     9001-95-0/RN
E7            1     9001-96-1/RN
E8            1     9001-97-2/RN
E9            1     9001-98-3/RN
E10           1     9001-99-4/RN
E11           1     90010-00-7/RN
E12           1     90010-01-8/RN

=> s e3
L2            1 9001-92-7/RN

=> d rn cn

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   9001-92-7  REGISTRY
CN   Proteinase (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   α-N-Benzoyl-DL-arginine-p-nitroanilide hydrolase
```

CN 537 Acidic protease
CN Actinase
CN Alcalase 2.5L-DX
CN Alcalase 2.5LDX
CN Alkalase 2.4L FG
CN Alkalase 2.5L Type DX
CN Alkalase 2.5L type X
CN Alkaline protease-L FG
CN ALP 901
CN Alphamalt BK 5020
CN Alphamalt LQ 4020
CN AO protease
CN APL 901
CN Aquatinase E
CN Arginine esterase
CN AS 1.398
CN AS 10
CN Azocaseinase
CN BAPAase
CN BAPNAase
CN Benzoyl arginine arylamidase
CN Benzoyl-DL-arginine-p-nitroanilide hydrolase
CN Bioprase 30L
CN Bioprase SP 4FG
CN Bioprotease A
CN Bioprotease N 100P
CN Biopurase
CN Biosoft PW
CN Carbonyl hydrolase
CN Casein endopeptidase
CN Caseinase
CN CL-5PG
CN Cleanase AP 100-PWC
CN Corolase 7089
CN Corolase L 10
CN DA 10
CN DA 10 (enzyme)
CN Denapsin 10P
CN Denatyme AP
CN Deozyme
CN Deterzyme L-600
CN Durazyme 16.0L
CN Endopeptidase
CN Endopeptidase O
CN Endoprotease
CN Endoproteinase
CN Enzeco fungal acid protease
CN Enzylase K 40
CN Enzylon SAL
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

=> e 39450-01-6
E1 1 3945-98-0/RN
E2 1 39450-00-5/RN
E3 1 --> 39450-01-6/RN
E4 1 39450-02-7/RN
E5 1 39450-03-8/RN

```
E6              1     39450-04-9/RN
E7              1     39450-05-0/RN
E8              1     39450-06-1/RN
E9              1     39450-07-2/RN
E10             1     39450-08-3/RN
E11             1     39450-09-4/RN
E12             1     39450-10-7/RN

=> s e3
L3              1 39450-01-6/RN

=> d rn cn

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   39450-01-6  REGISTRY
CN   Proteinase, Tritirachium album serine (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   E.C. 3.4.21.64
CN   Endopeptidase K
CN   Prok
CN   Protease K
CN   Proteinase K
CN   Tritirachium album proteinase K


=> file hcaplus; d que l12; d que l16
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FILE COVERS 1907 - 18 May 2005  VOL 142 ISS 21
FILE LAST UPDATED: 17 May 2005  (20050517/ED)

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L2              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L4        3665680 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR
                  AS.398 OR DA 10 OR PROTEINASE
L5           4239 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
                   ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L6           2812 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PRION DISEASES+PFT/CT
L7           4284 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PRION PROTEINS+PFT/CT
```

```
L8          1832 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SPONGIFORM (1A) ENCEPHAL?
L9          1490 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CREUTZFELDT JAKOB
L10        64645 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DIAGNOSIS+PFT/CT
L11        15047 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GEL ELECTROPHORESIS+PFT/CT
L12            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (L6 OR L7 OR
                 L8 OR L9) AND L10 AND L11


L8          1832 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SPONGIFORM (1A) ENCEPHAL?
L9          1490 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CREUTZFELDT JAKOB
L10        64645 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DIAGNOSIS+PFT/CT
L13         4982 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PRION/CW
L14       142360 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN OR GLYCOFORM
L15           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 AND L14 AND (L8 OR L9)
                 AND L10
L16           10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15 NOT (RGM OR HUMORAL)/TI

=> s l12 or l16
L61           14 L12 OR L16

=> file medline; d que l26
FILE 'MEDLINE' ENTERED AT 15:51:30 ON 18 MAY 2005

 FILE LAST UPDATED: 17 MAY 2005 (20050517/UP).  FILE COVERS 1950 TO DATE.

 On December 19, 2004, the 2005 MeSH terms were loaded.

 The MEDLINE reload for 2005 is now available.  For details enter HELP
 RLOAD at an arrow promt (=>).  See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

 OLDMEDLINE now back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2005 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L17         8284 SEA FILE=MEDLINE ABB=ON  PLU=ON  PRION DISEASES+NT/CT
L18         1353 SEA FILE=MEDLINE ABB=ON  PLU=ON  ENDOPEPTIDASE K+NT/CT
L19      1314458 SEA FILE=MEDLINE ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR
                 AS.398 OR DA 10 OR PROTEINASE
L20         2863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
                  ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L21       277860 SEA FILE=MEDLINE ABB=ON  PLU=ON  ELECTROPHORESIS+NT/CT
L23         6917 SEA FILE=MEDLINE ABB=ON  PLU=ON  L17/MAJ
L24           43 SEA FILE=MEDLINE ABB=ON  PLU=ON  L23 AND (L18 OR L19 OR L20)
                 AND L21
L25           22 SEA FILE=MEDLINE ABB=ON  PLU=ON  L24 AND PY>1997
L26           21 SEA FILE=MEDLINE ABB=ON  PLU=ON  L24 NOT L25
```

```
=> file biosis; d que l38
FILE 'BIOSIS' ENTERED AT 15:51:36 ON 18 MAY 2005
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 11 May 2005 (20050511/ED)

FILE RELOADED: 19 October 2003.


L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L27         6296 SEA FILE=BIOSIS ABB=ON  PLU=ON  PRION (1A) (PROTEIN OR
                 DISEASE)
L28         3138 SEA FILE=BIOSIS ABB=ON  PLU=ON  SPONGIFORM (1A) ENCEPHAL?
L29         3569 SEA FILE=BIOSIS ABB=ON  PLU=ON  CREUTZFE? JAK?
L30          167 SEA FILE=BIOSIS ABB=ON  PLU=ON  MAD COW
L31        88175 SEA FILE=BIOSIS ABB=ON  PLU=ON  PROTEINASE K OR PROTEASE OR
                 ENDOPEPTIDASE K
L32       196644 SEA FILE=BIOSIS ABB=ON  PLU=ON  ELECTROPHORESIS
L34      1352076 SEA FILE=BIOSIS ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR
                 AS.398 OR DA 10 OR PROTEINASE
L35         3505 SEA FILE=BIOSIS ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
                 ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L36           37 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L27 OR L28 OR L29 OR L30) AND
                 (L31 OR L34 OR L35) AND L32
L37           23 SEA FILE=BIOSIS ABB=ON  PLU=ON  L36 AND PY>1997
L38           14 SEA FILE=BIOSIS ABB=ON  PLU=ON  L36 NOT L37


=> file embase; d que l47
FILE 'EMBASE' ENTERED AT 15:51:42 ON 18 MAY 2005
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 FILE COVERS 1974 TO 12 May 2005 (20050512/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

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L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L39         7129 SEA FILE=EMBASE ABB=ON  PLU=ON  PRION DISEASE+NT/CT
L40          933 SEA FILE=EMBASE ABB=ON  PLU=ON  PROTEINASE K/CT
L41        70168 SEA FILE=EMBASE ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR
                 AS.398 OR DA 10 OR PROTEINASE
L42         2608 SEA FILE=EMBASE ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
                 ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L43       100935 SEA FILE=EMBASE ABB=ON  PLU=ON  ELECTROPHORESIS+NT/CT
L44           28 SEA FILE=EMBASE ABB=ON  PLU=ON  L39 AND (L40 OR L41 OR L42)
                 AND L43
L45           20 SEA FILE=EMBASE ABB=ON  PLU=ON  L44 AND PY>1997
L46            8 SEA FILE=EMBASE ABB=ON  PLU=ON  L44 NOT L45
```

```
L47          5 SEA FILE=EMBASE ABB=ON  PLU=ON  L46 NOT (MINK OR CONSERV? OR
               NOVEL)/TI


=> file wpix; d que 158; d que 160
FILE 'WPIX' ENTERED AT 15:51:56 ON 18 MAY 2005
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FILE LAST UPDATED:          17 MAY 2005      <20050517/UP>
MOST RECENT DERWENT UPDATE:     200531        <200531/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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    FIRST VIEW - FILE WPIFV.
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    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<


L2           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L48       1328 SEA FILE=WPIX ABB=ON  PLU=ON  PRION
L49        537 SEA FILE=WPIX ABB=ON  PLU=ON  SPONGIFORM (1A) ENCEPHAL?
L50        642 SEA FILE=WPIX ABB=ON  PLU=ON  CREUTZ? JAK?
L51      15775 SEA FILE=WPIX ABB=ON  PLU=ON  PROTEASE OR (PROTEINASE OR
               ENDOPEPTIDASE) (W) K
L52    2950493 SEA FILE=WPIX ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR AS.398
               OR DA 10 OR PROTEINASE
L53        419 SEA FILE=WPIX ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
               ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L54      17023 SEA FILE=WPIX ABB=ON  PLU=ON  ELECTROPHOR?
L56         30 SEA FILE=WPIX ABB=ON  PLU=ON  (L48 OR L49 OR L50) AND (L51 OR
               L52 OR L53) AND L54
L57         29 SEA FILE=WPIX ABB=ON  PLU=ON  L56 AND PRY>1997
L58          1 SEA FILE=WPIX ABB=ON  PLU=ON  L56 NOT L57


L2           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9001-92-7/RN
L3           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  39450-01-6/RN
L48       1328 SEA FILE=WPIX ABB=ON  PLU=ON  PRION
L49        537 SEA FILE=WPIX ABB=ON  PLU=ON  SPONGIFORM (1A) ENCEPHAL?
L50        642 SEA FILE=WPIX ABB=ON  PLU=ON  CREUTZ? JAK?
L51      15775 SEA FILE=WPIX ABB=ON  PLU=ON  PROTEASE OR (PROTEINASE OR
```

```
                ENDOPEPTIDASE) (W) K
L52       2950493 SEA FILE=WPIX ABB=ON  PLU=ON  L2 OR APL 901 OR AS 10 OR AS.398
                OR DA 10 OR PROTEINASE
L53           419 SEA FILE=WPIX ABB=ON  PLU=ON  L3 OR PROTEINASE, TRITIRACHIUM
                ALBUM SERINE OR (PROTEASE OR PROTEINASE) (W) K
L54         17023 SEA FILE=WPIX ABB=ON  PLU=ON  ELECTROPHOR?
L60            14 SEA FILE=WPIX ABB=ON  PLU=ON  (L48 OR L49 OR L50) AND (L51 OR
                L52 OR L53) AND L54 AND (DIAGNOS?/TI OR DETECT?/TI OR FIND?/TI
                OR LOCAT?/TI OR IDENTIF?/TI OR FOUND/TI OR ISOLAT?/TI)


=> s l58 or l60
L62            14 L58 OR L60

=> dup rem l26 l61 l38 l47 l58 l62
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PROCESSING COMPLETED FOR L26
PROCESSING COMPLETED FOR L61
PROCESSING COMPLETED FOR L38
PROCESSING COMPLETED FOR L47
PROCESSING COMPLETED FOR L58
PROCESSING COMPLETED FOR L62
L63            60 DUP REM L26 L61 L38 L47 L58 L62 (9 DUPLICATES REMOVED)
                  ANSWERS '1-21' FROM FILE MEDLINE
                  ANSWERS '22-35' FROM FILE HCAPLUS
                  ANSWERS '36-46' FROM FILE BIOSIS
                  ANSWERS '47-48' FROM FILE EMBASE
                  ANSWERS '49-60' FROM FILE WPIX

=> d ibib ed ab l63 1-48; d ibib ab abex l63 49-60

L63  ANSWER 1 OF 60     MEDLINE on STN                    DUPLICATE 3
ACCESSION NUMBER:    1998002065     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 9342673
TITLE:               Use of capillary sodium dodecyl sulfate gel electrophoresis
                     to detect the prion protein extracted from scrapie-infected
                     sheep.
AUTHOR:              Schmerr M J; Jenny A; Cutlip R C
CORPORATE SOURCE:    National Animal Disease Center, Ames, IA 50010, USA.
SOURCE:              Journal of chromatography. B, Biomedical sciences and
                     applications, (1997 Sep 12) 697 (1-2) 223-9.
                     Journal code: 9714109. ISSN: 1387-2273.
PUB. COUNTRY:        Netherlands
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
```

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199712
ENTRY DATE: Entered STN: 19980109
Last Updated on STN: 19980109
Entered Medline: 19971208

ED Entered STN: 19980109
Last Updated on STN: 19980109
Entered Medline: 19971208

AB Scrapie in sheep and in goats is the prototype of a group of transmissible spongiform encephalopathies (TSE). A feature of these diseases is the accumulation in the brain of rod shaped fibrils that form from an aggregated protein that is a protease-resistant form of a modified normal host cell protein. In this study, we compared SDS gel capillary electrophoresis to conventional SDS-PAGE and Western blot to detect the monomer of this aggregated protein. This prion protein was extracted from the sheep brain by homogenizing the brain stem (10%, w/v) in 0.32 M sucrose and by using a series of ultracentrifugation steps and treatment with sodium lauroyl sarcosine and **proteinase K** . After the final centrifugation step, the pellet was resuspended in 0.01 M Tris pH 7.4 in a volume equivalent to 0.1 ml/g of brain used. This resuspended pellet was treated with 1% SDS and 5% 2-mercaptoethanol and boiled for **10** min. The analysis was done in a Beckman P/ACE 5500 using a SDS gel capillary (eCap SDS14-200 Beckman capillary). In infected sheep brain samples, but not normal sheep, a major peak at a molecular mass of 16.1 kDa and a minor peak with a leading shoulder were observed. Since the molecular mass determined for this protein was lower than that estimated on Western blot (22.4 kDa), a Ferguson plot was made to determine if there were abberations in the molecular mass determination. After correction, the major peak was estimated to be 19.2 kDa. This has a better correlation with that determined by SDS-PAGE and Western blot. The equivalent amount of brain sample in the capillary was approximately 50 micrograms. For Western blot, the amount of brain sample was approximately 20 mg. For this assay, this is approximately 100 times less than that needed for Western blot for sheep samples.

L63 ANSWER 2 OF 60 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 1998034137 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9369204
TITLE: Elevation of apolipoprotein E in the CSF of cattle affected by BSE.
AUTHOR: Hochstrasser D F; Frutiger S; Wilkins M R; Hughes G; Sanchez J C
CORPORATE SOURCE: Clinical Chemistry Laboratory, Geneva University Hospital (HUG), Switzerland.
SOURCE: FEBS letters, (1997 Oct 20) 416 (2) 161-3.
Journal code: 0155157. ISSN: 0014-5793.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199712
ENTRY DATE: Entered STN: 19980109
Last Updated on STN: 19980109
Entered Medline: 19971208

ED Entered STN: 19980109
Last Updated on STN: 19980109
Entered Medline: 19971208

AB The cerebrospinal fluid (CSF) of patients suffering from Creutzfeldt-Jakob disease (CJD) display two unique polypeptide chains by two-dimensional

polyacrylamide gel electrophoresis (2-D PAGE). In the absence of a well-defined ante-mortem diagnostic test for bovine spongiform encephalopathy (BSE), spinal fluid samples of eight normal cows and eight cows known to carry BSE by post-mortem histological analysis were investigated to verify if equivalent polypeptides were present. Proteins with similar migration to human CJD polypeptides were not detected. But surprisingly, a cluster of polypeptide spots that was faint or not detected in normal bovine CSF samples was found to be elevated or massively increased in BSE CSF samples (more than **10**-fold increase). These elevated polypeptide chains were identified as apolipoprotein E.

L63 ANSWER 3 OF 60 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 95072735 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7981826
TITLE: Capillary electrophoresis of the scrapie prion protein from sheep brain.
AUTHOR: Schmerr M J; Goodwin K R; Cutlip R C
CORPORATE SOURCE: National Animal Disease Center, US Department of Agriculture, Ames, IA 50010.
SOURCE: Journal of chromatography. A, (1994 Oct 7) 680 (2) 447-53. Journal code: 9318488.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199501
ENTRY DATE: Entered STN: 19950116
Last Updated on STN: 20000303
Entered Medline: 19950104

ED Entered STN: 19950116
Last Updated on STN: 20000303
Entered Medline: 19950104

AB Scrapie in sheep and goats causes a progressive, degenerative disease of the central nervous system and is the prototype of other transmissible spongiform encephalopathies (TSE) found in humans and in animals. In samples of TSE-affected brains, unique rod-shaped structures are found and are infectious. These rods are composed of a protease-resistant, post-translationally modified cellular protein (PrPsc) that has a molecular mass of ca. 27,000 on sodium dodecyl sulfate-polyacrylamide gel electrophoresis. Laboratory tests used for the diagnosis of scrapie detect PrPsc. The overall concentration of PrPsc in tissues is low. The present methods to diagnose scrapie are lengthy, require relatively large quantities of starting material to detect PrPsc and lack sensitivity. We explored the use of free zone capillary electrophoresis and immunocomplex formation to detect PrPsc in the brain tissue of infected sheep. Brain tissue from both infected (as confirmed by histological and biological tests) and from normal animals was used to prepare the PrPsc. After treatment with **proteinase K** and non-ionic detergents, PrPsc was solubilized and reacted with a rabbit antiserum specific for a peptide of the prion protein. Immunocomplex formation was observed for the samples from scrapie-infected brain but not for samples from normal brain. When a fluorescein-labeled goat anti-rabbit immunoglobulin was used as a second antibody, the detection of immunocomplex formation was enhanced both by the immunological technique and by using laser-induced fluorescence for detection. This same rabbit antiserum was used on immunoblot analysis. Three bands were observed for material from an infected sheep but none in preparations from brain material from normal sheep.(ABSTRACT TRUNCATED AT 250 WORDS)

L63 ANSWER 4 OF 60 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 95054168 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7964868
TITLE: Detection of **proteinase**-resistant protein (PrP) in small brain tissue samples from Creutzfeldt-Jakob disease patients.
AUTHOR: Xi Y G; Cardone F; Pocchiari M
CORPORATE SOURCE: Laboratory of Virology, Instituto Superiore di Sanita, Rome, Italy.
SOURCE: Journal of the neurological sciences, (1994 Jul) 124 (2) 171-3.
Journal code: 0375403. ISSN: 0022-510X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 19950110
Last Updated on STN: 19950110
Entered Medline: 19941207
ED Entered STN: 19950110
Last Updated on STN: 19950110
Entered Medline: 19941207
AB We describe a short and a sensitive method to isolate PrP in small samples of brain tissue using a one day procedure. The tissue was homogenized in sarkosyl, cleared by low-speed centrifugation, and then ultracentrifuged. The pellet was suspended in **10** mM Tris-HCl, **10**% NaCl, 1% sarkosyl, precipitated by centrifugation and re-suspended in the above solution with **proteinase K**. After digestion, PrP was spun down, electrophoresed on a 15% SDS-polyacrylamide minigel and then electro-transferred to a nitrocellulose membrane. The blots were processed with rabbit polyclonal antibody against hamster PrP27-30. Four bands of PrP with molecular weights of 28-30 kDa, 24-26 kDa, 19-20 kDa, and 16 kDa were clearly detected by Western blot in two samples obtained by brain biopsy. To test the sensitivity and the specificity of our method we also purified PrP from 20, 50 and 100 mg of cerebral cortical tissues taken from six frozen CJD brains and one Alzheimer's disease brain of our collection. All the CJD samples, but not the Alzheimer's disease one, resulted positive by Western blot. In the smallest sample tested (20 mg), there was at least one band (about 25 kDa) of PrP detectable by Western blot. Thus, this is a valid and efficient method for the diagnosis of CJD in small brain tissue samples.

L63 ANSWER 5 OF 60 MEDLINE on STN
ACCESSION NUMBER: 1998275672 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9612725
TITLE: Highly infectious purified preparations of disease-specific amyloid of transmissible spongiform encephalopathies are not devoid of nucleic acids of viral size.
AUTHOR: Diringer H; Beekes M; Ozel M; Simon D; Queck I; Cardone F; Pocchiari M; Ironside J W
CORPORATE SOURCE: Department of Virology, Robert-Koch-Institut, Berlin, Germany.
SOURCE: Intervirology, (1997) 40 (4) 238-46.
Journal code: 0364265. ISSN: 0300-5526.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199808
ENTRY DATE: Entered STN: 19980828
Last Updated on STN: 19980828
Entered Medline: 19980820

ED Entered STN: 19980828
Last Updated on STN: 19980828
Entered Medline: 19980820

AB An efficient purification protocol for infectivity causing a transmissible spongiform encephalopathy (TSE) is described. From fractions purified by this protocol about 3 x **10**(8) LD50 but only 3 ng of nucleic acids per gram of brain material can be isolated from all TSE-affected brains (hamster, human, sheep, cattle). By PAGE such fractions from brains of infected and control hamsters contained only one distinct nucleic acid band of 1.5 kg together with some broader smear of nucleic acid material. Although distilled water was used for such purifications, quite often a similar nucleic acid band was isolated from blanks containing no brain material. In all instances this material proved to be DNA. The result challenges the potentially important claim that purified infectious preparations of TSE-specific amyloid are free of nucleic acids of viral size. Nucleic acids isolated by other groups from diseased brain were not detected in preparations isolated by the new protocol. The application of this purification protocol in future studies will be helpful to decide whether TSEs are caused by agents containing nucleic acid or by protein only.

L63 ANSWER 6 OF 60 MEDLINE on STN
ACCESSION NUMBER: 96275647 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8683568
TITLE: Separation of scrapie prion infectivity from PrP amyloid polymers.
AUTHOR: Wille H; Zhang G F; Baldwin M A; Cohen F E; Prusiner S B
CORPORATE SOURCE: Department of Neurology, University of California, San Francisco 94143, USA.
SOURCE: Journal of molecular biology, (1996 Jun 21) 259 (4) 608-21.
Journal code: 2985088R. ISSN: 0022-2836.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199608
ENTRY DATE: Entered STN: 19960828
Last Updated on STN: 20000303
Entered Medline: 19960820

ED Entered STN: 19960828
Last Updated on STN: 20000303
Entered Medline: 19960820

AB The prion protein (PrP) undergoes a profound conformational change when the cellular isoform (PrPC) is converted into the scrapie form (PrPSc). Limited proteolysis of PrPsc produces PrP 27-30 which readily polymerizes into amyloid. To study the structure of PrP amyloid, we employed organic solvents that perturb protein conformation. Hexafluoro-2-propanol (HFIP), which promotes alpha-helix formation, modified the ultrastructure of rod-shaped PrP amyloids; flattened ribbons with a more regular substructure were found. As the concentration of HFIP was increased, the beta-sheet content and **proteinase K** resistance of PrP 27-30 as well as prion infectivity diminished. HFIP reversibly decreased the binding of Congo red dye to the rods while inactivation of prion infectivity was irreversible. In contrast to **10**% HFIP,

1,1,1-trifluoro-2-propanol (TFIP) did not inactivate prion infectivity but like HFIP, TFIP did alter the morphology of the rods and abolish Congo red binding. This study separates prion infectivity from the amyloid properties of PrP 27-30 and underscores the dependence of prion infectivity on PrPSc conformation. The results also demonstrate that the specific beta-sheet-rich structures required for prion infectivity can be differentiated from those needed for amyloid formation as determined by Congo red binding.

L63 ANSWER 7 OF 60 MEDLINE on STN
ACCESSION NUMBER: 95155424 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7852415
TITLE: A 60-kDa prion protein (PrP) with properties of both the normal and scrapie-associated forms of PrP.
AUTHOR: Priola S A; Caughey B; Wehrly K; Chesebro B
CORPORATE SOURCE: Laboratory of Persistent Viral Diseases, National Institute of Allergy and Infectious Diseases, Rocky Mountain Laboratories, Hamilton, Montana 59840.
SOURCE: Journal of biological chemistry, (1995 Feb 17) 270 (7) 3299-305.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199503
ENTRY DATE: Entered STN: 19950322
Last Updated on STN: 19970203
Entered Medline: 19950315

ED Entered STN: 19950322
Last Updated on STN: 19970203
Entered Medline: 19950315

AB Scrapie is a transmissible spongiform encephalopathy of sheep and other mammals in which disease appears to be caused by the accumulation of an abnormal form of a host protein, prion protein (PrP), in the brain and other tissues. The process by which the normal protease-sensitive form of PrP is converted into the abnormal protease-resistant form is unknown. Several hypotheses predict that oligomeric forms of either the normal or abnormal PrP may act as intermediates in the conversion process. We have now identified a 60-kDa PrP derived from hamster PrP expressed in murine neuroblastoma cells. Peptide mapping studies provided evidence that the 60-kDa PrP was composed solely of PrP and, based on its molecular mass, appeared to be a PrP dimer. The 60-kDa PrP was not dissociated under several harsh denaturing conditions, which indicated that it was covalently linked. It was similar to the disease-associated form of PrP in that it formed large aggregates. However, it resembled the normal form of PrP in that it was sensitive to **proteinase K** and had a short metabolic half-life. The 60-kDa PrP, therefore, had characteristics of both the normal and disease-associated forms of PrP. Formation and aggregation of the 60-kDa hamster PrP occurs in uninfected mouse neuroblastoma cells, which suggests that hamster PrP has a predisposition to aggregate even in the absence of scrapie infectivity. Similar 60-kDa PrP bands were identified in scrapie-infected hamster brain but not in uninfected brain. Therefore, a 60-kDa molecule might participate in the scrapie-associated conversion of protease-sensitive PrP to protease-resistant PrP.

L63 ANSWER 8 OF 60 MEDLINE on STN
ACCESSION NUMBER: 1998044736 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8807814
TITLE: Aggregates of scrapie-associated prion protein induce the cell-free conversion of protease-sensitive prion protein to the protease-resistant state.
AUTHOR: Caughey B; Kocisko D A; Raymond G J; Lansbury P T Jr
CORPORATE SOURCE: Laboratory of Persistent Viral Diseases, Rocky Mountain Laboratory, NIAID, NIH, Hamilton, MT 59840, USA.
SOURCE: Chemistry & biology, (1995 Dec) 2 (12) 807-17.
Journal code: 9500160. ISSN: 1074-5521.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801
ENTRY DATE: Entered STN: 19980129
Last Updated on STN: 20000303
Entered Medline: 19980115

ED Entered STN: 19980129
Last Updated on STN: 20000303
Entered Medline: 19980115

AB INTRODUCTION: Scrapie infection instigates the in vivo conversion of normal, protease-sensitive prion protein (PrPC) into a protease-resistant form (PrPSc) by an unknown mechanism. In vitro studies have indicated that PrPSc can induce this conversion, consistent with proposals that PrPSc itself might be the infectious scrapie agent. Using this cell-free model of the PrPC to PrPSc conversion, we have studied the dependence of conversion on reactant concentration, and the properties of the PrPSc-derived species that has converting activity. RESULTS: The cell-free conversion of 35S PrPC to the **proteinase K** -resistant form was dependent on the reaction time and initial concentrations of PrPSc (above an apparent minimum threshold concentration) and 35S PrPC. Analysis of the physical size of the converting activity indicated that detectable converting activity was associated only with aggregates. Under mildly chaotropic conditions, which partially disaggregated PrPSc and enhanced the converting activity, the active species were heterogeneous in size, but larger than either effectively solubilized PrP or molecular weight standards of approximately 2000 kDa. CONCLUSIONS: The entity responsible for the converting activity was many times larger than a soluble PrP monomer and required a threshold concentration of PrPSc. These results are consistent with a nucleated polymerization mechanism of PrPSc formation and inconsistent with a heterodimer mechanism.

L63 ANSWER 9 OF 60 MEDLINE on STN
ACCESSION NUMBER: 95051750 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7962730
TITLE: Astrocyte gene expression in experimental mouse scrapie.
AUTHOR: Lazarini F; Boussin F; Deslys J P; Tardy M; Dormont D
CORPORATE SOURCE: Laboratoire de Neuropathologie Experimentale et Neurovirologie, CRSSA, Commissariat a l'Energie Atomique, DPTE/DSV, Fontenay aux Roses, France.
SOURCE: Journal of comparative pathology, (1994 Jul) 111 (1) 87-98.
Journal code: 0102444. ISSN: 0021-9975.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 19950110

Last Updated on STN: 19950110
Entered Medline: 19941229

ED Entered STN: 19950110
Last Updated on STN: 19950110
Entered Medline: 19941229

AB The biological hallmark of transmissible spongiform encephalopathies is a significant accumulation, in brain, of the scrapie prion protein (PrPsc), often associated with an increased glial fibrillary acidic protein (GFAP) expression. This study was focused on astrocyte gene expression during scrapie development over a period of 172 days in intracerebrally inoculated newborn mice. The levels of expression of PrP and two specific astrocyte proteins, -GFAP and glutamine synthetase (GS)-, were investigated by Western and Northern blots. In brain, a **10**-fold increased expression of GFAP mRNAS was demonstrated from 112 days post-inoculation to 172 days, whereas the "upregulation" of GS mRNAs was two-fold. GFAP was observed to increase **10**- to 20-fold in scrapie-infected brain from day 112 to day 172, while PrP showed a three- to four-fold elevation. Both proteins were found in greater amount in the frontal cortex and cerebellum of animals with clinical scrapie than in those given an injection of normal brain. PrPsc was detected in scrapie brain from day 84 after inoculation, and thereafter increased about 20-fold until day 172. On the other hand, the concentration of glutamine synthetase remained constant in brain throughout the scrapie disease. To conclude, these results show that GFAP and GS mRNAs are differently upregulated in brain in the scrapie mouse model.

L63 ANSWER 10 OF 60 MEDLINE on STN
ACCESSION NUMBER: 93296209 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8516321
TITLE: Nucleic acid binding proteins in highly purified Creutzfeldt-Jakob disease preparations.
AUTHOR: Sklaviadis T; Akowitz A; Manuelidis E E; Manuelidis L
CORPORATE SOURCE: Yale Medical School, New Haven, CT 06510.
CONTRACT NUMBER: AG03105 (NIA)
NS12674 (NINDS)
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1993 Jun 15) 90 (12) 5713-7.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199307
ENTRY DATE: Entered STN: 19930806
Last Updated on STN: 19930806
Entered Medline: 19930722

ED Entered STN: 19930806
Last Updated on STN: 19930806
Entered Medline: 19930722

AB The nature of the infectious agent causing human Creutzfeldt-Jakob disease (CJD), a slowly progressive dementia, is controversial. As in scrapie, no agent-specific proteins or nucleic acids have been identified. However, biological features of exponential replication and agent strain variation, as well as physical size and density data, are most consistent with a viral structure--i.e., a nucleic acid-protein complex. It is often assumed that nuclease treatment, which does not reduce infectious titer, leaves no nucleic acids of > 50 bp. However, nucleic acids of 500-6000 bp can be extracted from highly purified infectious complexes with a mass of approximately 1.5 x **10**(7) daltons. It was therefore germane to

search for nucleic acid binding proteins that might protect an agent genome. We here use Northwestern blotting to show that there are low levels of nonhistone nucleic acid binding proteins in highly purified infectious 120S gradient fractions. Several nucleic acid binding proteins were clearly host encoded, whereas others were apparent only in CJD, but not in parallel preparations from uninfected brain. Small amounts of residual host Gp34 (prion protein) did not bind any 32P-labeled nucleic acid probes. Most of the minor "CJD-specific" proteins had an acidic pI, a characteristic of many viral core proteins. Such proteins deserve further study, as they probably contribute to unique properties of resistance described for these agents. It remains to be seen if any of these proteins are agent encoded.

L63 ANSWER 11 OF 60 MEDLINE on STN
ACCESSION NUMBER: 94071868 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7902706
TITLE: Recombinant human growth hormone and insulin-like growth factor I induce PrP gene expression in PC12 cells.
AUTHOR: Lasmezas C; Deslys J P; Dormont D
CORPORATE SOURCE: Laboratoire de Neuropathologie Experimentale et Neurovirologie, DSV/DPTE/CRSSA/CEA, Fontenay-aux-Roses, France.
SOURCE: Biochemical and biophysical research communications, (1993 Nov 15) 196 (3) 1163-9.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199401
ENTRY DATE: Entered STN: 19940201
Last Updated on STN: 19970203
Entered Medline: 19940104
ED Entered STN: 19940201
Last Updated on STN: 19970203
Entered Medline: 19940104
AB Growth factors like NGF are known to increase the expression of PrP gene, a housekeeping gene which is responsible for susceptibility to transmissible spongiform encephalopathies. We evaluated in vitro the effect of recombinant human growth hormone (hGH) and one of its in vivo effectors, the insulin-like growth factor I (IGF-I), on PrP gene expression in PC12 cells. We observed a 30% increase of PrP mRNA level after 7 day treatment by hGH at **10** micrograms/ml and potentiation of NGF effect (reaching four times baseline expression as opposed to three times baseline with NGF alone). IGF-I induced a dose-dependent increase of PrP mRNA up to twice baseline at a dose of 100 ng/ml and had an additive effect with NGF at **10** ng/ml. These preliminary results indicate that growth promoting factors may play a role in the PrP gene regulation within neuron-like cells.

L63 ANSWER 12 OF 60 MEDLINE on STN
ACCESSION NUMBER: 94162551 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8117968
TITLE: [The infectiousness of 18- to 20-kd proteins isolated from the brain of people who have died from amyotrophic leukospongiosis].
Infektsionnost' belkov 18--20 kd, vydelennykh iz mozga liudei, umershikh ot amiotroficheskogo leikospongioza.
AUTHOR: Poleshchuk N N; Kapitulets S P; Kapitulets N N; Kvacheva E

B; Eremin V F; Votiakov V P
SOURCE: Biulleten' eksperimental'noi biologii i meditsiny, (1993 Oct) 116 (10) 409-12.
Journal code: 0370627. ISSN: 0365-9615.
PUB. COUNTRY: RUSSIA: Russian Federation
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199404
ENTRY DATE: Entered STN: 19940412
Last Updated on STN: 19940412
Entered Medline: 19940407

ED Entered STN: 19940412
Last Updated on STN: 19940412
Entered Medline: 19940407

AB Specific globular structures, **10**-12 nm in diameter, having a high resistance to various physicochemical factors and infectivity have been isolated for the first time from the brain of 2 patients, who died of amyotrophic leukospongiosis (AL). It has been shown that these globules contain infectious major protease-resistant protein with a molecular weight of about 18-20 kD. The findings indicate the unique nature of a disease and they open new aspects of AL etiopathogenesis.

L63 ANSWER 13 OF 60 MEDLINE on STN
ACCESSION NUMBER: 94078746 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7504862
TITLE: Intercrines in brain pathology. Expression of intercrines in a multiple sclerosis and Morbus Creutzfeldt-Jakob lesion.
AUTHOR: Schluesener H J; Meyermann R
CORPORATE SOURCE: Institut fur Hirnforschung, Eberhard-Karls Universitat Tubingen, Germany.
SOURCE: Acta neuropathologica, (1993) 86 (4) 393-6.
Journal code: 0412041. ISSN: 0001-6322.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199401
ENTRY DATE: Entered STN: 19940203
Last Updated on STN: 19960129
Entered Medline: 19940113

ED Entered STN: 19940203
Last Updated on STN: 19960129
Entered Medline: 19940113

AB Expression of cytokine genes regulating vascular permeability and chemoattraction was studies by polymerase chain reaction in RNA from two different types of brain lesions: a multiple sclerosis plaque and in tissue from a patient with Creutzfeldt-Jakob disease. While cytokine genes encoding vascular permeability factor, interleukin (IL)-2, IL-4, or IL-**10**, generally associated with active inflammatory processes, were not expressed, we observed expression of some intercrine genes in both types of lesions. As these lesions share a common set of structural features such as prominent astrogliosis and glial cells are known producers of intercrines, we suggest that intercrines have a role in the formation of gliotic brain lesions.

L63 ANSWER 14 OF 60 MEDLINE on STN
ACCESSION NUMBER: 92113531 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1684986
TITLE: Copurification of Sp33-37 and scrapie agent from hamster brain prior to detectable histopathology and clinical disease.
AUTHOR: Bolton D C; Rudelli R D; Currie J R; Bendheim P E
CORPORATE SOURCE: Department of Molecular Biology, New York State Institute for Basic Research in Developmental Disabilities, Staten Island 10314.
CONTRACT NUMBER: NS-23948 (NINDS)
NS-24720 (NINDS)
SOURCE: Journal of general virology, (1991 Dec) 72 (Pt 12) 2905-13.
Journal code: 0077340. ISSN: 0022-1317.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 19920308
Last Updated on STN: 19950206
Entered Medline: 19920220
ED Entered STN: 19920308
Last Updated on STN: 19950206
Entered Medline: 19920220
AB Studies were conducted to determine whether accumulation of the scrapie agent protein Sp33-37 in brain correlated with the appearance of the scrapie agent or with pathology. The concentrations of the scrapie agent and Sp33-37 were measured in purified fraction P5 isolated from hamster brains at weekly intervals after inoculation. The scrapie agent concentration in fraction P5 was approximately **10**(-1) LD50/g brain 1 day post-inoculation and increased to **10**(9.4) LD50/g at day 77. Sp33-37 was first detected in P5 at day 21, when the agent titre was **10**(3.9) LD50/g. Sp33-37 concentration increased in concert with the scrapie agent concentration, although the apparent rate of increase was somewhat lower for the protein than for the agent. The histopathological evidence of disease, consisting of mild vacuolation and gliosis, was first seen at 35 days, but was not conspicuous until 49 to 56 days post-inoculation. Vacuolation and gliosis increased until termination of the experiment at day 77. Amyloid plaques were first detected at 56 days and were widespread at day 77. Clinical disease was first seen in these animals at day 66, with an average onset at day 71. Control animals inoculated with buffer alone showed some mild gliosis, but were otherwise normal. The fact that Sp33-37 purified with the scrapie agent isolated from brain 14 days prior to detectable (light microscopic) pathology supports the theory that Sp33-37 is the major structural component of the scrapie agent and not solely a product of the pathology.

L63 ANSWER 15 OF 60 MEDLINE on STN
ACCESSION NUMBER: 91253265 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1675031
TITLE: Morphological and biochemical evidence that scrapie-associated fibrils are derived from aggregated amyloid-like filaments.
AUTHOR: Isomura H; Shinagawa M; Ikegami Y; Sasaki K; Ishiguro N
CORPORATE SOURCE: Department of Veterinary Public Health, School of Veterinary Medicine, Obihiro University of Agriculture and Veterinary Medicine, Japan.
SOURCE: Virus research, (1991 Mar) 18 (2-3) 191-201.
Journal code: 8410979. ISSN: 0168-1702.

PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199107
ENTRY DATE: Entered STN: 19910728
Last Updated on STN: 19950206
Entered Medline: 19910709

ED Entered STN: 19910728
Last Updated on STN: 19950206
Entered Medline: 19910709

AB The membrane fraction from scrapie infected mouse brains was dissolved in saturated urea, centrifuged on a **10** to 50% glycerol gradient at 35,000 rpm for 24 h, and fractionated from the bottom of the tube into 11 fractions. PrP was detected throughout the gradient. However, the relative PrP concentrations of fractions 4 and 8 were the highest. The relative PrP concentration versus protein concentration of fractions 1 to 4 was higher than that of the other fractions. Scrapie infectivity also was detected in all fractions. Fractions 2, 3, 4, 7, and 8 produced the shortest incubation periods. Positively stained filamentous aggregates with sizes varying from about 40 x 60 nm to more than 4 microns were observed in fractions 2 and 4 by negative staining. These resembled amyloid filaments. Congo red-stained aggregates showed birefringence under polarized light. Aggregation of the filamentous aggregates was observed by incubation with anti-mouse SAF serum. Fine fibrils **10** -18 nm in width were partially dissociated from the aggregates by brief exposure to the detergent Sarkosyl. These facts suggest that SAF are not products of self-assembly from subunit structures liberated from membranes by exposure to detergent, but exist as aggregates of amyloid-like filaments from which SAF are dissociated by detergent extraction.

L63 ANSWER 16 OF 60 MEDLINE on STN
ACCESSION NUMBER: 90384983 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2119503
TITLE: Conservation of infectivity in purified fibrillary extracts of scrapie-infected hamster brain after sequential enzymatic digestion or polyacrylamide gel electrophoresis.
AUTHOR: Brown P; Liberski P P; Wolff A; Gajdusek D C
CORPORATE SOURCE: Laboratory of Central Nervous System Studies, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD 20892.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1990 Sep) 87 (18) 7240-4. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199010
ENTRY DATE: Entered STN: 19901122
Last Updated on STN: 19901122
Entered Medline: 19901024

ED Entered STN: 19901122
Last Updated on STN: 19901122
Entered Medline: 19901024

AB Infectious extracts of scrapie-infected hamster brain enriched for scrapie-associated fibrils and scrapie amyloid protein (PrP) were partially denatured and subjected to either polyacrylamide gel electrophoresis with subsequent isolation of the PrP band or sequential

enzymatic digestion with deglycosidase, phospholipase, **proteinase**, and several different nucleases. Infectivity measurements of these various specimens revealed a convincing association between infectivity and scrapie amyloid protein, with or without its sugar chains and disulfide bonds, and did not support the hypothesis that nucleic acid is involved in replication.

L63 ANSWER 17 OF 60 MEDLINE on STN
ACCESSION NUMBER: 89279197 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2567338
TITLE: Structural and biochemical evidence that scrapie-associated fibrils assemble in vivo.
AUTHOR: Somerville R A; Ritchie L A; Gibson P H
CORPORATE SOURCE: AFRC & MRC Neuropathogenesis Unit, Edinburgh, U.K.
SOURCE: Journal of general virology, (1989 Jan) 70 (Pt 1) 25-35.
Journal code: 0077340. ISSN: 0022-1317.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198907
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 20000303
Entered Medline: 19890721
ED Entered STN: 19900309
Last Updated on STN: 20000303
Entered Medline: 19890721
AB Scrapie-associated fibrils (SAF) are a ubiquitous pathological feature of brains affected by scrapie and the other scrapie-like agents. They are composed of PrP, a heterogeneous glycoprotein which is also present in normal brain but not as SAF. The PrP protein associated with SAF is partially resistant to **proteinase K**, whereas the soluble form is not. It has been proposed that SAF do not exist as such in vivo, but rather self-assemble from subunit structures liberated from membranes by detergent extraction during purification. We have purified SAF by a method that does not employ **proteinase K**. We show that the PrP protein from infected but not uninfected brain is partially resistant to protease digestion before and after detergent extraction. Likewise, SAF can be sheared by sonication before or after detergent extraction. In addition, SAF from mice infected with different strains of scrapie have different sedimentation properties. Since SAF-dependent properties exist before detergent extraction, then so must SAF. They are therefore not a detergent-induced artefact but most probably assemble in vivo.

L63 ANSWER 18 OF 60 MEDLINE on STN
ACCESSION NUMBER: 87287768 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3112607
TITLE: Changes in the localization of brain prion proteins during scrapie infection.
COMMENT: Erratum in: Neurology 1987 Nov;37(11):1770
AUTHOR: DeArmond S J; Mobley W C; DeMott D L; Barry R A; Beckstead J H; Prusiner S B
CONTRACT NUMBER: AG02132 (NIA)
NS14069 (NINDS)
NS22786 (NINDS)
SOURCE: Neurology, (1987 Aug) 37 (8) 1271-80.
Journal code: 0401060. ISSN: 0028-3878.
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198709
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19970203
Entered Medline: 19870904

ED Entered STN: 19900305
Last Updated on STN: 19970203
Entered Medline: 19870904

AB Prion proteins (PrP) were localized in the brains of normal and scrapie-infected hamsters by immunohistochemistry and Western blotting. PrP monoclonal antibodies and monospecific anti-PrP peptide sera, which react with both the cellular (PrPC) and scrapie (PrPSc) isoforms of the prion protein, were used to locate PrP in tissue sections. In normal hamsters, PrPC was located primarily in nerve cell bodies throughout the CNS; whereas, in the terminal stages of scrapie, PrP immunoreactivity was shifted to the neuropil and was absent from most nerve cell bodies. Prion proteins were not uniformly dispersed throughout the gray matter of scrapie-infected hamster brains; rather, they were concentrated in those regions that exhibited spongiform degeneration and reactive astrogliosis. Since earlier studies showed that the level of PrPC remains constant during scrapie infection as measured in whole brain homogenates and no antibodies are presently available that can distinguish PrPC from PrPSc, we analyzed individual brain regions by Western blotting. Analysis of **proteinase K**-digested homogenates of dissected brain regions showed that most of the regional changes in PrP immunoreactivity that are seen during scrapie infection are due to the accumulation of PrPSc. These observations indicate that the tissue pathology of scrapie can be directly correlated with the accumulation of PrPSc in the neuropil, and they suggest that the synthesis and distribution of the prion protein has a central role in the pathogenesis of this disorder.

L63 ANSWER 19 OF 60 MEDLINE on STN
ACCESSION NUMBER: 86170415 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2420924
TITLE: Detection of scrapie-associated fibril (SAF) proteins using anti-SAF antibody in non-purified tissue preparations.
AUTHOR: Rubenstein R; Kascsak R J; Merz P A; Papini M C; Carp R I; Robakis N K; Wisniewski H M
CONTRACT NUMBER: AG04220 (NIA)
NS21349 (NINDS)
SOURCE: Journal of general virology, (1986 Apr) 67 (Pt 4) 671-81.
Journal code: 0077340. ISSN: 0022-1317.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198605
ENTRY DATE: Entered STN: 19900321
Last Updated on STN: 20000303
Entered Medline: 19860505

ED Entered STN: 19900321
Last Updated on STN: 20000303
Entered Medline: 19860505

AB Antisera raised to scrapie-associated fibril (SAF) proteins were used to detect scrapie-specific polypeptides in three different non-purified brain preparations: a synaptosomal-mitochondrial fraction, 20% brain homogenate and 20% brain homogenate extracted with Sarkosyl. The concentration of

SAF proteins in the preparations was greater than the quantity of SAF as detected by negative stain electron microscopy. This suggests that not all of the protein exists in the form of SAF. An immunologically reactive 33K to 35K protein was detected in both normal and scrapie brain preparations. This protein was susceptible to complete **proteinase K** (PK) digestion in normal brain preparations and it is suggested that scrapie infection is responsible for post-translational modifications which confer PK resistance in scrapie preparations. These modifications may also play a role in the antigenic differences seen in a variety of scrapie agents. SAF-specific proteins were also detected in the spinal cords and spleens from scrapie-affected animals. Detergent extraction of material followed by PK treatment and Western blot analysis is a highly specific and sensitive method for the detection of SAF proteins. This procedure could be applied to human neurological diseases of unknown aetiology.

L63 ANSWER 20 OF 60 MEDLINE on STN
ACCESSION NUMBER: 86257345 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3523251
TITLE: Abnormal proteins in the cerebrospinal fluid of patients with Creutzfeldt-Jakob disease.
AUTHOR: Harrington M G; Merril C R; Asher D M; Gajdusek D C
SOURCE: New England journal of medicine, (1986 Jul 31) 315 (5) 279-83.
Journal code: 0255562. ISSN: 0028-4793.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198608
ENTRY DATE: Entered STN: 19900321
Last Updated on STN: 19900321
Entered Medline: 19860815
ED Entered STN: 19900321
Last Updated on STN: 19900321
Entered Medline: 19860815
AB We studied more than 300 cerebrospinal fluid proteins from 21 patients with Creutzfeldt-Jakob disease. We also examined cerebrospinal fluid from 100 normal controls and more than 400 patients with various neurologic disorders other than Creutzfeldt-Jakob disease. Four abnormal proteins that were identified in the patients with Creutzfeldt-Jakob disease were absent in the normal persons. Two of these proteins (Mr [relative molecular mass], 40,000; pl [isoelectric point], 5.7 and Mr 40,000; pl 5.9) were also present in some patients with multiple sclerosis, herpes simplex encephalitis, schizophrenia, Parkinson's disease, or Guillain-Barre or Behcet's syndrome. Two proteins (Mr 26,000; pl 5.2 and Mr 29,000; pl 5.1) were present in all patients with Creutzfeldt-Jakob disease and in 5 of **10** patients with herpes simplex encephalitis, but in none of the other control groups. A subsequent blinded study of these cerebrospinal fluid proteins from patients with Creutzfeldt-Jakob disease, Alzheimer's disease, Huntington's disease, multi-infarct dementia, parkinsonism dementia of Guam, or the specific dementia of the acquired immunodeficiency syndrome resulted in the ability to distinguish all cases of Creutzfeldt-Jakob disease from the other types of dementia. Although the identity and origin of the abnormal spinal fluid proteins are not yet known, these preliminary results suggest that their presence may help in the diagnosis of Creutzfeldt-Jakob disease.

L63 ANSWER 21 OF 60 MEDLINE on STN

ACCESSION NUMBER: 83067439 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6815801
TITLE: Identification of a protein that purifies with the scrapie prion.
AUTHOR: Bolton D C; McKinley M P; Prusiner S B
CONTRACT NUMBER: AG02132 (NIA)
NS14069 (NINDS)
SOURCE: Science, (1982 Dec 24) 218 (4579) 1309-11.
Journal code: 0404511. ISSN: 0036-8075.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198301
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 20000303
Entered Medline: 19830119

ED Entered STN: 19900317
Last Updated on STN: 20000303
Entered Medline: 19830119

AB Purification of prions from scrapie-infected hamster brain yielded a protein that was not found in a similar fraction from uninfected brain. The protein migrated with an apparent molecular size of 27,000 to 30,000 daltons in sodium dodecyl sulfate polyacrylamide gels. The resistance of this protein to digestion by **proteinase K** distinguished it from proteins of similar molecular weight found in normal hamster brain. Initial results suggest that the amount of this protein correlates with the titer of the agent.

L63 ANSWER 22 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2002:315218 HCAPLUS
DOCUMENT NUMBER: 136:321711
TITLE: A urine test for the diagnosis of prion diseases
INVENTOR(S): Gabizon, Ruth; Shaked, Gideon M.
PATENT ASSIGNEE(S): Hadasit Medical Research Services and Development Ltd., Israel
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002033420	A2	20020425	WO 2001-IL968	20011021
WO 2002033420	A3	20030103		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2426126	AA	20020425	CA 2001-2426126	20011021
AU 2002012647	A5	20020429	AU 2002-12647	20011021
EP 1328813	A2	20030723	EP 2001-980863	20011021

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR	2001015131	A	20040113	BR 2001-15131	20011021
JP	2004511809	T2	20040415	JP 2002-536556	20011021
NZ	525616	A	20041126	NZ 2001-525616	20011021
US	2005084983	A1	20050421	US 2003-399321	20011021
PRIORITY APPLN. INFO.:				IL 2000-139185 A	20001022
				IL 2001-141950 A	20010312
				WO 2001-IL968 W	20011021

ED Entered STN: 26 Apr 2002

AB The present invention relates to a method for detecting the presence of the abnormal isoform of prion protein (PrPSC) in a urine sample of a subject. The method of the invention comprising the steps of: (a) providing a urine sample of said subject; (b) isolating from said sample all proteins, preferably, isolating proteins having a mol. weight higher than about 8 Kda; (c) optionally, and preferably, subjecting the proteins obtained in step (b) to protease digestion, and isolating from the mixture obtained in step (c) any protease resistant proteins; and (d) detecting the presence of PrPSC in the protease resistant fraction obtained in step (c) by a suitable detection technique.Furthermore, the invention further relates to methods for diagnosing a prion disease in a subject and for screening donors of blood samples for the presence of prion diseases. The invention further provides for a diagnostic kit for diagnosing a prion disease in a subject.

L63 ANSWER 23 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 1998:251321 HCAPLUS
DOCUMENT NUMBER: 128:305941
TITLE: Diagnosis of **spongiform encephalopathy**
INVENTOR(S): Collinge, John
PATENT ASSIGNEE(S): Imperial College of Science, Technology and Medicine, UK; Collinge, John
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9816834	A1	19980423	WO 1997-GB2843	19971015
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2268904	AA	19980423	CA 1997-2268904	19971015
AU 9747115	A1	19980511	AU 1997-47115	19971015
GB 2333362	A1	19990721	GB 1999-8649	19971015
GB 2333362	B2	20010516		
EP 934531	A1	19990811	EP 1997-909428	19971015
EP 934531	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

JP 2001503141	T2	20010306	JP 1998-518114	19971015
GB 2354946	A1	20010411	GB 2001-890	19971015
GB 2354946	B2	20010516		
GB 2355074	A1	20010411	GB 2001-1033	19971015
NZ 335290	A	20010831	NZ 1997-335290	19971015
AT 272842	E	20040815	AT 1997-909428	19971015
ES 2134749	T3	20050316	ES 1997-909428	19971015
US 2002081645	A1	20020627	US 2001-778926	20010206
PRIORITY APPLN. INFO.:			GB 1996-21469 A	19961015
			GB 1996-21885 A	19961021
			GB 1999-8649 A	19971015
			WO 1997-GB2843 W	19971015
			US 1999-291215 B1	19990414

ED Entered STN: 02 May 1998

AB The present invention relates to a method for typing a sample of a prion or **spongiform encephalopathy** disease, a kit suitable for use in such a typing method, a method for identifying infection in an animal and/or tissue of bovine **spongiform encephalopathy** (BSE), a method for assessing and/or predicting the susceptibility of an animal to BSE, a kit for use in such an assessment and/or prediction method, a method for the treatment of a prion disease, compds. suitable for such a method, use of such compds. and pharmaceutical agents comprising such compds.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 24 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1156469 HCAPLUS

DOCUMENT NUMBER: 142:79947

TITLE: Method for delivering drugs to the brain

INVENTOR(S): Rabinow, Barrett E.; Gendelman, Howard E.; Kipp, James E.

PATENT ASSIGNEE(S): Baxter International Inc., USA

SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112747	A2	20041229	WO 2004-US18850	20040615
WO 2004112747	A3	20050303		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005048002	A1	20050303	US 2004-868680	20040615
PRIORITY APPLN. INFO.:			US 2003-482096P P	20030624

ED Entered STN: 30 Dec 2004

AB The present invention is concerned with delivering a pharmaceutical composition

to the brain of a mammalian subject for treating brain diseases or disorders. The process includes the steps of: (i) providing a dispersion of the pharmaceutical composition as particles having an average particle size of from about 150 nm to 100 μ, and (ii) administering the dispersion to the mammalian subject for delivery to the brain of a portion of the pharmaceutical composition by cells capable of reaching the brain. The dispersion of the pharmaceutical composition as particles, e.g., can be subjected tp phagocytosis or can be adsorbed by the cells prior or subsequent to administration into the mammalian subject. The dispersion of the pharmaceutical composition can be administered to the central nervous system or the vascular system. After administration, the loaded cells transport the pharmaceutical composition as particles into the brain.

L63 ANSWER 25 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:300001 HCAPLUS
DOCUMENT NUMBER: 140:337228
TITLE: Effects of Different Experimental Conditions on the PrPSc Core Generated by Protease Digestion: Implications for strain typing and molecular classification of CJD
AUTHOR(S): Notari, Silvio; Capellari, Sabina; Giese, Armin; Westner, Ingo; Baruzzi, Agostino; Ghetti, Bernardino; Gambetti, Pierluigi; Kretzschmar, Hans A.; Parchi, Piero
CORPORATE SOURCE: Dipartimento di Scienze Neurologiche, Universita di Bologna, Bologna, 40123, Italy
SOURCE: Journal of Biological Chemistry (2004), 279(16), 16797-16804
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 13 Apr 2004
AB The discovery of mol. subtypes of the pathol. prion protein PrPSc has provided the basis for a novel classification of human transmissible **spongiform encephalopathies** (TSEs) and a potentially powerful method for strain typing. However, there is still a significant disparity regarding the understanding and nomenclature of PrPSc types. In addition, it is still unknown whether a specific PrPSc type is associated with each TSE phenotypic variant. In sporadic **Creutzfeldt-Jakob** disease (sCJD), five disease phenotypes are known, but only two major types of PrPSc, types 1 and 2, have been consistently reproduced. The authors further analyzed PrPSc properties in sCJD and variant CJD using a high resolution gel electrophoresis system and varying exptl. conditions. The authors found that pH varies among CJD brain homogenates in standard buffers, thereby influencing the characteristics of protease-treated PrPSc. The authors also show that PrPSc type 1 and type 2 are heterogeneous species which can be further distinguished into five mol. subtypes that fit the current histopathol. classification of sCJD variants. The authors' results shed light on previous disparities in PrPSc typing, provide a refined classification of human PrPSc types, and support the notion that the pathol. TSE phenotype is related to PrPSc structure.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 26 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:590185 HCAPLUS
DOCUMENT NUMBER: 141:222635
TITLE: Neuropathology and molecular biology of variant **Creutzfeldt-Jakob** disease
AUTHOR(S): Ironside, J. W.; Head, M. W.
CORPORATE SOURCE: National Creutzfeldt-Jakob Disease Surveillance Unit, Department of Pathology, Western General Hospital, University of Edinburgh, Edinburgh, EH4 2XU, UK
SOURCE: Current Topics in Microbiology and Immunology (2004), 284(Mad Cow Disease and Related Spongiform Encephalopathies), 133-159
CODEN: CTMIA3; ISSN: 0070-217X
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ED Entered STN: 25 Jul 2004
AB A review. The neuropathol. features of human prion diseases are spongiform change, neuronal loss, astrocytic proliferation and the accumulation of PrPSc, the abnormal isoform of prion protein (PrP). The pattern of brain involvement is remarkably variable and is substantially influenced by the host PrP genotype and PrPSc isotype. Variant **Creutzfeldt-Jakob** disease (vCJD) is a novel human prion disease which results from exposure to the bovine **spongiform encephalopathy** (BSE) agent. The neuropathol. of vCJD shows consistent characteristics, with abundant florid and cluster plaques in the cerebrum and cerebellum, and widespread accumulation of PrPres on immunocytochem. These features are distinct from all other types of human prion disease. Spongiform change is most marked in the basal ganglia, while the thalamus exhibits severe neuronal loss and gliosis in the posterior nuclei. These areas of thalamic pathol. correlate with the areas of high signal seen in the thalamus on magnetic resonance imaging (MRI) examination of the brain. Western blot anal. of PrPSc in the brain in vCJD tissue shows a uniform isotype, with a **glycoform** ratio characterized by predominance of the diglycosylated band, distinct from sporadic CJD. PrPSc accumulation in vCJD is readily detectable outside the brain, in contrast with other forms of human prion disease, particularly in the lymphoid system and in parts of the peripheral nervous system. This has raised concern about the possible iatrogenic transmission of vCJD by contaminated surgical instruments, or blood. All cases of vCJD are methionine homozygotes at codon 129 of the prion protein gene (PRNP). Continued surveillance is required to investigate cases of vCJD in the UK and other countries where BSE has been reported, particularly as cases of "human BSE" in individuals who are MV or VV at codon 129 of the PrP gene have not yet been identified. Histol., genetic and biochem. techniques are essential tools for the adequate diagnosis and investigation of human prion diseases.
REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 27 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:335409 HCAPLUS
DOCUMENT NUMBER: 138:317152
TITLE: Diagnostic method
INVENTOR(S): Stack, Michael James; Chaplin, Melanie Jane; Clark, Jemma
PATENT ASSIGNEE(S): The Secretary of State for Environment, Food and Rural Affairs, UK
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003036303	A1	20030501	WO 2002-GB4789	20021023
WO 2003036303	C1	20030918		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2462581	AA	20030501	CA 2002-2462581	20021023
GB 2396009	A1	20040609	GB 2004-6547	20021023
GB 2396009	B2	20050316		
EP 1442303	A1	20040804	EP 2002-770097	20021023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005506551	T2	20050303	JP 2003-538748	20021023
US 2004265904	A1	20041230	US 2004-493572	20040513
PRIORITY APPLN. INFO.:			GB 2001-25606 A	20011025
			WO 2002-GB4789 W	20021023

ED Entered STN: 02 May 2003

AB A method for typing a strain of a transmissible **spongiform encephalophathy** (TSE) in an infected animal, said method comprising: (a) separating a sample of abnormal prion protein on the basis of mol. weight and/or **glycoform** ratios, and detecting the separated forms; (b) detecting in the sample the presence of a peptide sequence, wherein the presence of said peptide sequence within abnormal prion protein is capable of distinguishing a particular strain of TSE from others, and (c) using the results of (a) and (b) to determine the type of TSE strain present in the sample. The method may be used in particular to distinguish BSE from scrapie in sheep.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 28 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:282704 HCAPLUS
DOCUMENT NUMBER: 138:300153
TITLE: Methods for determining oligosaccharide binding using gel mobility shift assays
INVENTOR(S): Rosenberg, Robert D.; Wu, Zhengliang
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2003029415 A2 20030410 WO 2002-US31080 20021001
WO 2003029415 A3 20031211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2003138849 A1 20030724 US 2002-263338 20021001
PRIORITY APPLN. INFO.: US 2001-326270P P 20011001
ED Entered STN: 11 Apr 2003
AB The invention relates to methods for detecting and characterizing enzymic modifications of oligosaccharides, such as heparan sulfate, and their interaction with binding partners, such as proteins, using an oligosaccharide-binding partner binding assay, such as a gel mobility shift assay. The instant invention relates to a rapid, convenient, sensitive and inexpensive method for identifying or studying oligosaccharide-binding partner interactions, identifying and characterizing structural features on oligosaccharides, identifying and characterizing binding partners, identifying agents capable of interfering with, enhancing, or facilitating the binding of an oligosaccharide to its binding partner, diagnosing conditions associated with altered oligosaccharide-binding partner binding, and generating oligosaccharide libraries and kits therefor. Using chemical and enzymically modified heparin sulfates and gel mobility shift assay, the formation of FGF 1 signaling complex and study the phys. parameters of HS in FGF signaling complex formation in a physiol. condition without disturbing the natural structure or conformation of individual components was studied. The results concerning the minimal oligosacchamide, stoichiometry of HS, and the critical functional groups support a revised 2:2:2 FGF1:HS:FGFR1 signaling model.

L63 ANSWER 29 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:792951 HCAPLUS
DOCUMENT NUMBER: 139:379303
TITLE: Molecular analysis of cases of Italian sheep scrapie and comparison with cases of bovine **spongiform encephalopathy** (BSE) and experimental BSE in sheep
AUTHOR(S): Nonno, Romolo; Esposito, Elena; Vaccari, Gabriele; Conte, Michela; Marcon, Stefano; Di Bari, Michele; Ligios, Ciriaco; Di Guardo, Giovanni; Agrimi, Umberto
CORPORATE SOURCE: Laboratory of Veterinary Medicine, Istituto Superiore di Sanita, Rome, Italy
SOURCE: Journal of Clinical Microbiology (2003), 41(9), 4127-4133
CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 10 Oct 2003
AB Concerns have been raised about the possibility that the bovine **spongiform encephalopathy** (BSE) agent could have been transmitted to sheep populations via contaminated feedstuff. The objective of the authors' study was to investigate the suitability of mol. strain typing methods as a surveillance tool for studying scrapie strain

variations and for differentiating PrPSc from sheep scrapie, BSE, and sheep BSE. The authors studied 38 Italian sheep scrapie cases from 13 outbreaks, along with a British scrapie case, an exptl. ovine BSE, and 3 BSE cases, by analyzing the **glycoform** patterns and the apparent mol. masses of the nonglycosylated forms of semipurified, proteinase-treated PrPSc. Both criteria were able to clearly differentiate sheep scrapie from BSE and ovine exptl. BSE. PrPSc from BSE and sheep BSE showed a higher **glycoform** ratio and a lower mol. mass of the nonglycosylated form compared to scrapie PrPSc. Scrapie cases displayed homogeneous PrPSc features regardless of breed, flock, and geog. origin. The **glycoform** patterns observed varied with the antibody used, but either a monoclonal antibody (MAb) (F99/97.6.1) or a polyclonal antibody (P7-7) was able to distinguish scrapie from BSE PrPSc. While more extensive surveys are needed to further corroborate these findings, the authors' results suggest that large-scale mol. screening of sheep populations for BSE surveillance may be eventually possible.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 30 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:575371 HCAPLUS
DOCUMENT NUMBER: 137:137261
TITLE: Method for the diagnosis of Alzheimer's disease and other prion related disorders
INVENTOR(S): Small, David Henry; Fodero, Lisa
PATENT ASSIGNEE(S): Axonyx, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059619	A2	20020801	WO 2002-US1874	20020123
WO 2002059619	A3	20021017		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002150878	A1	20021017	US 2002-51653	20020117
CA 2442708	AA	20020801	CA 2002-2442708	20020123
EP 1356299	A2	20031029	EP 2002-705902	20020123
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2001-263841P P 20010123
WO 2002-US1874 W 20020123

ED Entered STN: 02 Aug 2002
AB The invention provides a method for the diagnosis of dementia and transmissible **spongiform encephalopathies** by detecting the levels of **glycoproteins** that bind wheat germ agglutinin. The invention also provides for diagnosis of dementia and transmissible **spongiform encephalopathies** by examining the glycosylation

patterns of biomarkers, acetylcholinesterase and butyrylcholinesterase.

L63 ANSWER 31 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:240731 HCAPLUS
DOCUMENT NUMBER: 136:257287
TITLE: Compounds and methods for diagnosing and treating amyloid-related conditions
INVENTOR(S): Raub, Thomas J.; Tanis, Steven P.; Buhl, Allen Edwin; Carter, Donald Bainbridge; Bandiera, Tiziano; Lansen, Jacqueline; Pellerano, Cesare; Savini, Luisa
PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA; Pharmacia & Upjohn S.p.A.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002024652	A1	20020328	WO 2001-US29010	20010917
WO 2002024652	B1	20020627		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6589504	B1	20030708	US 2000-667357	20000922
AU 2001089123	A5	20020402	AU 2001-89123	20010917
EP 1318982	A1	20030618	EP 2001-968919	20010917
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003219377	A1	20031127	US 2003-421126	20030423
PRIORITY APPLN. INFO.:			US 2000-234611P P	20000922
			US 2000-667357 A	20000922
			WO 2001-US29010 W	20010917

OTHER SOURCE(S): MARPAT 136:257287
ED Entered STN: 28 Mar 2002
AB The invention provides methods for diagnosing and treating amyloid-related conditions and compds. useful for the same. The invention provides for detecting, imaging, monitoring, diagnosing, and treating conditions characterized by the binding or aggregation of amyloid fibrils. More particularly, the invention relates to using quinolinehydrazone compds. for diagnosing and treating amyloidotic conditions and also as an antioxidant. Examples are provided showing that 4-methyl-7-methoxy-2-(4-quinolylmethylenehydrazino)quinoline is suitable for fluorescence detection of amyloid plaque and has antioxidant activity.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 32 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:476818 HCAPLUS
DOCUMENT NUMBER: 137:75451
TITLE: Quantitative analysis of prion protein by

immunoblotting
AUTHOR(S): Takekida, Kaori; Kikuchi, Yutaka; Yamazaki, Takeshi; Horiuchi, Motohiro; Kakeya, Tomoshi; Shinagawa, Morikazu; Takatori, Kosuke; Tanimura, Akio; Tanamoto, Kenichi; Sawada, Junichi
CORPORATE SOURCE: Showa Woman's Univ., Tokyo, 154-8533, Japan
SOURCE: Journal of Health Science (2002), 48(3), 288-291
CODEN: JHSCFD; ISSN: 1344-9702
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 26 Jun 2002
AB Transmissible **spongiform encephalopathy** (TSE) is a neurodegenerative disease characterized by spongiform degeneration and accumulation of an infectious isoform (PrPSc) of the prion protein in the central nervous system. PrPSc originates from a ubiquitous cellular prion protein (PrPC). We attempted to develop an easy method of quant. anal. of PrP by immunoblotting based on densitometry data for PrP bands in immunoblots. Both PrPC and PrPSc yield three bands in immunoblots, and they correspond to PrP mols. carrying two, one, and no Asn-linked sugar chains. We used bovine PrPC as a model protein in the immunoblotting study. We removed the Asn-linked sugar chains from the PrP mols. with N-glycanase to convert all three **glycoforms** of PrP into a single band of the deglycosylated form and determined the PrP by densitometry calibrated with recombinant bovine PrP.

L63 ANSWER 33 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:886642 HCAPLUS
DOCUMENT NUMBER: 136:2491
TITLE: Method for the analysis of picomole amounts of carbohydrates
INVENTOR(S): Callewaert, Nico Luc Marc; Contreras, Roland Henry; Molemans, Francis Stephaan Jan
PATENT ASSIGNEE(S): Vlaams Interuniversitair Instituut Voor Biotechnologie Vzw, Belg.
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092890	A1	20011206	WO 2001-EP6042	20010525
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001067485	A5	20011211	AU 2001-67485	20010525
PRIORITY APPLN. INFO.:			EP 2000-201865 A	20000526
			US 2000-207606P P	20000526
			WO 2001-EP6042 W	20010525

ED Entered STN: 07 Dec 2001

AB The present invention relates to a miniaturized method to analyze carbohydrates that are present in picomole amts. in a sample. More particularly, the present invention relates to the fluorescent or spectroscopic labeling of carbohydrates, the efficient separation of the labeling reagent from the labeled carbohydrates and subsequent electrophoretic separation for the anal. of the carbohydrates. This invention describes the identification and structural characterization of carbohydrates which are bound to other biomols. The carbohydrates are derived from organisms such as prions, viruses, mycoplasma, bacteria, fungi or parasites.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 34 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:911105 HCAPLUS
DOCUMENT NUMBER: 134:85127
TITLE: Prion protein peptides and uses thereof
INVENTOR(S): Cashman, Neil R.; Paramithiotis, Eustache; Slon-Usakiewicz, Jacek; Haghighat, Ashkan; Pinard, Marc
PATENT ASSIGNEE(S): Caprion Pharmaceuticals, Inc., Can.
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078344	A1	20001228	WO 2000-US17455	20000623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2377648	AA	20001228	CA 2000-2377648	20000623
EP 1194164	A1	20020410	EP 2000-941708	20000623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003521477	T2	20030715	JP 2001-504406	20000623
PRIORITY APPLN. INFO.:			US 1999-140634P	A2 19990623
			WO 2000-US17455	W 20000623

ED Entered STN: 29 Dec 2000
AB In general, the invention features antibodies specific for PrPSc and diagnostic, therapeutic, and decontamination uses thereof. The invention also features synthetic peptides useful as immunogens for generating antibodies specific for PrPSc and therapeutic for the treatment of prion diseases.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 35 OF 60 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:40489 HCAPLUS
DOCUMENT NUMBER: 134:264113

TITLE: The prions
AUTHOR(S): Vervaeren, Jacques
CORPORATE SOURCE: Belg.
SOURCE: Journal de Pharmacie de Belgique (2000), 55(6), 142-144
CODEN: JPBEAJ; ISSN: 0047-2166
PUBLISHER: Association Pharmaceutique Belge, Service Scientifique
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French
ED Entered STN: 17 Jan 2001
AB A review, with 23 refs., discussing the prion **glycoprotein** which is encoded on human chromosome 20. Included is a small discussion on the normal (PrPc) form and a large discussion on the scrapie (PrPsc) form which is involved in **spongiform encephalopathies.**
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 36 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 7
ACCESSION NUMBER: 1992:167214 BIOSIS
DOCUMENT NUMBER: PREV199293089539; BA93:89539
TITLE: CORRECTION OF BA 80068856. SPECIFIC PROTEINS ASSOCIATED WITH **CREUTZFELDT-JAKOB** DISEASE AND SCRAPIE SHARE ANTIGENIC AND CARBOHYDRATE DETERMINANTS. CORRECTION OF PUBLICATION YEAR FROM 1915.
AUTHOR(S): MANUELIDIS L [Reprint author]; VALLEY S; MANUELIDIS E E
CORPORATE SOURCE: YALE UNIV SCH MED, 310 CEDAR ST, NEW HAVEN, CONN 06510, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1985) Vol. 82, No. 12, pp. 4263-4267.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
Errata; (Correction)
Errata
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 31 Mar 1992
Last Updated on STN: 31 Mar 1992
ED Entered STN: 31 Mar 1992
Last Updated on STN: 31 Mar 1992
AB Small amounts of brain tissue (2g) infected with **Creutzfeldt-Jakob** disease (CJD) can be fractionated by using a simple 1-day method that includes lysis with N-lauroylsarcosine. Unique fibrils were identified previously in scrapie- and CJD-infected tissue. These fibrils were abundant in final fractions. Preparations from human CJD autopsy material and from experimental hamster and guinea pig CJD all displayed readily identifiable fibrils that were not seen in control preparations. Thus, these methods appear to be of value in biopsy diagnosis of suspected human cases of CJD. Lysis with N-lauroylsarcosine quantitatively solubilized infectivity from membrane-rich fractions. Significant infectivity was recovered in microfractionations. After **proteinase K** digestion, a diffuse band at 29 band at 29 kDa (kildalton) was detectable on sodium dodecyl sulfate polyacrylamide gel **electrophoresis.** This 29-kDa material was not present in uninfected control brain and was similar to that seen in scrapie. Protein blots of human, guinea pig and hamster CJD fractions were tested with an antibody raised against a 29-kDa band from mouse scrapie; 29-kDa proteins were labeled in all CJD and scrapie fractions but not in controls. These results indicate that specific proteins in both these diseases share

common antigenic determinants. Ricin and wheat germ agglutinin, but not concanavalin A, also labeled a portion of the 29-kDa band from hamster CJD and hamster scrapie fractions, but they did not label any bands in normal hamster fractions at the same gel protein loads. When **proteinase K** treatment was omitted, specific bands of ≈ 35 kDa were detected in CJD samples. These results are consistent with the idea that some CJD- and scrapie-specific proteins are glycoproteins or sialoglycoproteins that can reside in or possibly derive from cell membranes.

L63 ANSWER 37 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:454150 BIOSIS
DOCUMENT NUMBER: PREV199799753353
TITLE: The protein product of the het-s heterokaryon incompatibility gene of the fungus Podospora anserina behaves as a prion analog.
AUTHOR(S): Coustou, Virginie [Reprint author]; Deleu, Carol; Saupe, Sven; Begueret, Joel
CORPORATE SOURCE: Lab. Genet. Mol. Champignons Filamenteux, Inst. Biochim. Genet. Cell., Centre Natl. Rech. Sci. Unite Propre Rech. 9026, 1 rue Camille Saint Saens, 33077 Bordeaux Cedex, France
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1997) Vol. 94, No. 18, pp. 9773-9778.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Oct 1997
Last Updated on STN: 27 Oct 1997
ED Entered STN: 27 Oct 1997
Last Updated on STN: 27 Oct 1997
AB The het-s locus of Podospora anserina is a heterokaryon incompatibility locus. The coexpression of the antagonistic het-s and het-S alleles triggers a lethal reaction that prevents the formation of viable heterokaryons. Strains that contain the het-s allele can display two different phenotypes, (Het-s) or (Het-s*), according to their reactivity in incompatibility. The detection in these phenotypically distinct strains of a protein expressed from the het-s gene indicates that the difference in reactivity depends on a posttranslational difference between two forms of the polypeptide encoded by the het-s gene. This posttranslational modification does not affect the electrophoretic mobility of the protein in SDS/ PAGE. Several results suggest a similarity of behavior between the protein encoded by the het-s gene and prions. The (Het-s) character can propagate in (Het-s*) strains as an infectious agent, producing a (Het-s*) fwdarw (Het-s) transition, independently of protein synthesis. Expression of the (Het-s) character requires a functional het-s gene. The protein present in (Het-s) strains is more resistant to **proteinase K** than that present in (Het-s*) mycelium. Furthermore, overexpression of the het-s gene increases the frequency of the transition from (Het-s*) to (Het-s). We propose that this transition is the consequence of a self-propagating conformational modification of the protein mediated by the formation of complexes between the two different forms of the polypeptide.

L63 ANSWER 38 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1996:334336 BIOSIS

DOCUMENT NUMBER: PREV199699056692
TITLE: Improvements in a competition assay to detect scrapie **prion protein** by capillary **electrophoresis**.
AUTHOR(S): Schmerr, Mary Jo [Reprint author]; Goodwin, Kathryn R.; Cutlip, Randall C.; Jenny, Allen L.
CORPORATE SOURCE: National Anim. Dis. Cent., US Dep. Agric., Agric. Res. Serv., 2300 Dayton Road, Ames, IA 50010, USA
SOURCE: Journal of Chromatography B Biomedical Applications, (1996) Vol. 681, No. 1, pp. 29-35.
CODEN: JCBADL. ISSN: 0378-4347.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jul 1996
Last Updated on STN: 26 Jul 1996
ED Entered STN: 26 Jul 1996
Last Updated on STN: 26 Jul 1996

AB Scrapie in sheep and goats is the prototype of transmissible **spongiform encephalopathies** found in humans and animals. A feature of these diseases is the accumulation of rod-shaped fibrils in the brain that form from an aggregated protein. This protein is a **protease**-resistant form of a normal host cell protein. When the aggregated protein is denatured in SDS and beta-mercaptoethanol, a monomer form (**prion protein**) with a molecular mass of 27 kDa is observed. Free zone capillary **electrophoresis** and peptides labeled with fluorescein were used to detect the **prion protein** through competition for a labeled peptide in immune complex formation. The separation of the immune complexes from the unbound peptide using 200 mM Tricine (pH 8.0) was faster and was better resolved than that obtained with phosphate or borate buffer systems. The amount of immune complex formation was dependent on the amount of antibody in the assay. The amount of bound labeled peptide and unbound labeled peptide could be measured directly by calculating the area of each respective peak. As increasing amounts of unlabeled peptide were added to the assay, a concentration dependent reduction in the immune complex peak was observed. The assay could detect less than **10**.0 fmol of unlabeled peptide. There was a quantitative difference in the competition of preparations from scrapie infected sheep brain and normal sheep brain.

L63 ANSWER 39 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:281764 BIOSIS
DOCUMENT NUMBER: PREV199396011989
TITLE: Attempts to restore scrapie prion infectivity after exposure to protein denaturants.
AUTHOR(S): Prusiner, Stanley B. [Reprint author]; Groth, Darlene; Serban, Ana; Stahl, Neil; Gabizon, Ruth
CORPORATE SOURCE: Dep. Neurol., HSE-781, Univ. Calif., San Francisco, CA 94143, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1993) Vol. 90, No. 7, pp. 2793-2797.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jun 1993
Last Updated on STN: 9 Jun 1993
ED Entered STN: 9 Jun 1993
Last Updated on STN: 9 Jun 1993

AB A wealth of experimental evidence argues that infectious prions are composed largely, if not entirely, of the scrapie isoform of the **prion protein**. We attempted to restore scrapie infectivity after exposure to protein denaturants including urea, chaotropic salts, and SDS. None of the procedures restored infectivity. Dialysis to remove slowly chaotropic ions and urea failed to restore scrapie infectivity. Attempts to create monomers of the scrapie isoform of the **prion protein** under nondenaturing conditions using a wide variety of detergents have been unsuccessful, to date, except for one report claiming that scrapie infectivity could be recovered from 12% polyacrylamide gels after SDS/PAGE (Brown, P., Liberski, P. P., Wolff, A. and Gajdusek, D. C. (1990) Proc. Nad. Acad. Sci. USA 87, 7240-7244). We found that lt 0.001% of the infectious prion titer could be recovered from the region of a polyacrylamide gel where the denatured **proteinase K**-resistant core of the scrapie isoform of the **prion protein** and other 30-kDa proteins migrate. We conclude that under the denaturing conditions used for SDS/PAGE, the scrapie isoform of the **prion protein** is denatured and little or no renaturation occurs upon injection of fractions eluted from gels into animals for bioassays.

L63 ANSWER 40 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1993:275923 BIOSIS
DOCUMENT NUMBER: PREV199396006148
TITLE: Murine retrovirus-induced **spongiform encephalopathy**: Disease expression is dependent on postnatal development of the central nervous system.
AUTHOR(S): Lynch, William P. [Reprint author]; Portis, John L.
CORPORATE SOURCE: Lab. Persistent Viral Diseases, Rocky Mountain Lab., Natl. Inst. Allergy Infectious Diseases, Hamilton, Montana 59840, USA
SOURCE: Journal of Virology, (1993) Vol. 67, No. 5, pp. 2601-2610. CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jun 1993
Last Updated on STN: 9 Jun 1993

ED Entered STN: 9 Jun 1993
Last Updated on STN: 9 Jun 1993

AB In this report, we have examined the role of central nervous system (CNS) development in the pathogenesis of neurodegenerative disease induced by murine retroviruses. This was accomplished by comparing the effect of delivering viruses, with either severe or marginal neurovirulence (J. L. Portis, S. Czub, C. F. Garon, and F. J. McAtee, J. Virol. 64:1648-1656, 1990), during the midgestational development of the mouse (gestation days 9 to **10**). Midgestation inoculation of the marginally neurovirulent virus, 15-1, resulted in high level CNS infection, as determined by viral DNA and protein analysis. The high-level infection resulted in rapid, severe disease with 100% incidence and an average clinical onset on postnatal day 17 (P17). The disease onset was comparable to that observed for the highly neurovirulent virus, FrCas-E, when inoculated neonatally (onset ca. P16). To evaluate whether disease could be induced even earlier in CNS development, FrCas-E was inoculated during midgestation. Surprisingly, neither clinical nor histological manifestations of CNS disease were accelerated but rather appeared at the same developmental time as seen for neonatally inoculated animals (onset of neuropathology at ca. P10; onset of clinical disease at ca. P15). CNS infection, on the other hand, occurred at earlier times (

lt P0), at higher levels, and with a broader distribution than in neonatally inoculated animals. No infection of the neurons which ultimately degenerate was observed in any regimen of virus inoculation. It was observed, however, that the gp70 viral envelope protein from the CNS showed an increase mobility on sodium dodecyl sulfate-polyacrylamide gel **electrophoresis** compared with the envelope protein from infected spleens or purified virions. These results indicate that a postnatal developmental event must occur to allow the presence of a neurovirulent virus to precipitate spongiform degeneration and that an altered envelope protein may be participating in the process.

L63 ANSWER 41 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:186179 BIOSIS
DOCUMENT NUMBER: PREV199395096629
TITLE: PrP polymorphisms associated with natural scrapie discovered by denaturing gradient gel **electrophoresis.**
AUTHOR(S): Laplanche, J. L. [Reprint author]; Chatelain, J. [Reprint author]; Westaway, D.; Thomas, S. [Reprint author]; Dussaucy, M. [Reprint author]; Brugere-Picoux, J.; Launay, J. M.
CORPORATE SOURCE: FRA C. Bernard "Neurochimie Communications Cell.", Hopital Saint-Louis, 1 Av. C. Vellefaux, 75010 Paris, France
SOURCE: Genomics, (1993) Vol. 15, No. 1, pp. 30-37.
CODEN: GNMCEP. ISSN: 0888-7543.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Apr 1993
Last Updated on STN: 10 Apr 1993
ED Entered STN: 9 Apr 1993
Last Updated on STN: 10 Apr 1993
AB Scrapie is a transmissible degenerative disease of the central nervous system occurring naturally in sheep and goats. An abnormal **protease**-resistant form of the host-encoded **prion protein** (PrP) accumulates in the brains of affected animals. As Sip, a gene controlling the incubation period of experimental and natural scrapie, is linked to the single-copy sheep PrP gene, we sought PrP coding sequence polymorphisms in flocks from the Romanov and Ile-de-France breeds endemically affected with natural scrapie. DNA samples from 153 sheep, including 29 natural scrapie cases, were screened by using polymerase chain reactions and denaturing gradient gel **electrophoresis.** Four predicted amino acid substitutions were found in the center of the PrP coding region: 112 Met fwdarw Thr, 136 Ala fwdarw Val, 154 Arg fwdarw His, and 171 Gln fwdarw Arg. These substitutions appeared mutually exclusive, defining five coding alleles. The 136Val allele, substituting a highly conserved Ala residue, in a homozygous or heterozygous state correlated with susceptibility to natural scrapie (chi-2 = 64.33, P lt 0.001). This correlation indicates that the 136Val allele may modulate development of the disease, implying a pivotal role for PrP molecules in natural scrapie, as has been observed for experimental scrapie and human **prion diseases.**

L63 ANSWER 42 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:264653 BIOSIS
DOCUMENT NUMBER: PREV199293140978; BA93:140978
TITLE: BIOCHEMICAL AND PHYSICAL PROPERTIES OF THE **PRION PROTEIN** FROM TWO STRAINS OF THE TRANSMISSIBLE MINK

ENCEPHALOPATHY AGENT.
AUTHOR(S): BESSEN R A [Reprint author]; MARSH R F
CORPORATE SOURCE: DEP VETERINARY SCIENCE, UNIVERSITY WISCONSIN-MADISON, 1655 LINDEN DRIVE, MADISON, WIS 53706, USA
SOURCE: Journal of Virology, (1992) Vol. 66, No. 4, pp. 2096-2101. CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 23 May 1992
Last Updated on STN: 23 May 1992
ED Entered STN: 23 May 1992
Last Updated on STN: 23 May 1992
AB Transmissible mink encephalopathy (TME) has been transmitted to Syrian golden hamsters, and two strains of the causative agent, HYPER (HY) and DROWSY (DY), have been identified that have different biological properties. During scrapie, a TME-like disease, an endogenous cellular **protein**, the **prion protein** (PrPC), is modified (to PrPSc) and accumulates in the brain. PrPSc is partially resistant to **proteases** and is claimed to be an essential component of the infectious agent. Purification and anaysis of PrP from hamsters infected with the HY and DY TME agent strains revealed differences in properties of PrPTME sedimentation in N-lauroylsarcosine, sensitivity to digestion with **proteinase K**, and migration in poloyacrylamide gels. PrPC and HY PrPTME can be distingusihed on the basis of their relative solubilities in detergent and **protease** sensitivities. PrPTME from DY-infected brain tissue shared solubility characteristics of PrP both uninfected and HY-infected tissue. Limited **protease** digestion of PrPTME revealed strain-specific migration pattern upon polyacrylamide gel **electrophoresis**. Prolonged protinase K treatment or N-linked deglycosylation of PrPTME did not eliminate such differences but demonstrated the PrPTME from DY-infected brain was mre sensitive to **protease** digestion than HY PrPT,E. Antigenic mapping of PrPTME with antibodies raised agaisnt synthetic peptides revealed strain-specific differences in immunoreactivity in a region of the amino-terminal end of PrPTME containing amino acid residues 80 to 103. These findings indicate that PrPTME from the two agent strains, although originating from the same host, differ in composition, conformation, or both. We concude that PrPTME from the HY and DY strains undergo different posttranslational modifications that could explain differences in the biochemical properties of PrPTME from the two sources. Whether these strain-specific posttranslational events are directly responsible for the distinct biological properties of the HY and DY agent strains remains to be determined.

L63 ANSWER 43 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:456073 BIOSIS
DOCUMENT NUMBER: PREV198682112915; BA82:112915
TITLE: CHARACTERIZATION OF MAJOR PEPTIDES IN **CREUTZFELDT -JAKOB** DISEASE AND SCRAPIE.
AUTHOR(S): SKLAVIADIS T [Reprint author]; MANUELIDIS L; MANUELIDIS E E
CORPORATE SOURCE: YALE UNIV SCH MED, 333 CEDAR ST, NEW HAVEN, CT 06510, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1986) Vol. 83, No. 16, pp. 6146-6150. CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
FILE SEGMENT: BA

LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 21 Nov 1986
Last Updated on STN: 21 Nov 1986
ED Entered STN: 21 Nov 1986
Last Updated on STN: 21 Nov 1986
AB In **Creutzfeldt-Jakob** disease three major peptides cosediment with the infectious agent. These distinct peptides are not present in identical fractions from uninfected brain, and bind to polyclonal antibodies raised against "**prion protein**" purified by **protease** treatment. Three similar distinct peptides are also found in scrapie-infected brain fractions purified without the use of **proteases**. To clarify the relationships between these distinct peptides and **prion protein** peptides were analyzed on immunoblots after cleavage with various glycosidases. There are two different 34-kDa peptides. One binds to ricin and cannot be detected by nonequilibrium pH gradient **electrophoresis**, presumably due to its highly acidic or basic pI. A second basic 34-kDa glycopeptide (Gp34) contains multiple terminal sialic acid residues responsible for charge heterogeneity (pI values, 7.2-7.8) and is reduced to a single spot with a pI value of 7.8 after neuraminidase treatment. After (but not before) neuraminiolase treatment, secondary D-galactose-like sugars are detectable on Gp34, and a small number of N-acetylglucosamine residues probably represent the third sugar residue in an N-linked chain. When virtually all sugar residues are removed with endoglycosidase H the molecular weight of Gp34 is reduced by only ≈2 kDa. The residual peptide strongly binds antibody. A third acidic 24- to 26-kDa species (p26) also binds polyclonal antibodies but, in contrast to Gp34, was unaffected by any glycosidase treatment. **Protease**-treated peptides showed a very broad array of pI spots, consistent with a heterogeneous protein origin. None of the nonproteolyzed peptides show a clear relationship to **prion protein**. The number of sugar residues on Gp34 is not consistent with those estimated for **prion protein**. Although p26 could be the source of the "prion sequence," p26 does not appear to be glycosylated. Regardless, it is likely that all the major peptides described thus far are accumulated or modified normal gene products and are not integral components of the infectious agent.

L63 ANSWER 44 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1985:329969 BIOSIS
DOCUMENT NUMBER: PREV198579109965; BA79:109965
TITLE: SCRAPIE AND **CREUTZFELDT-JAKOB DISEASE PRION PROTEINS** SHARE PHYSICAL PROPERTIES AND ANTIGENIC DETERMINANTS.
AUTHOR(S): BENDHEIM P E [Reprint author]; BOCKMAN J M; MCKINLEY M P; KINGSBURY D T; PRUSINER S B
CORPORATE SOURCE: DEP BIOMED ENVIRON SCI, SCH PUBLIC HEALTH, UNIV CALIF, BERKELEY, CALIF 94720, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1985) Vol. 82, No. 4, pp. 997-1001.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Scrapie of sheep and goats as well as **Creutzfeldt-Jakob** disease (CJD) of humans are neurologic disorders caused by slow infectious pathogens. The novel molecular properties of the pathogen causing scrapie

have prompted introduction of the term prion to denote a small proteinaceous infectious particle that resists inactivation by nucleic acid-modifying procedures. Antiserum to the major hamster scrapie **prion protein** (PrP 27-30) was found to cross-react with murine CJD proteins. The CJD proteins had MW similar to those observed for scrapie **prion proteins** as determined by sodium dodecyl sulfate-gel **electrophoresis**. The CJD proteins were resistant to digestion by **proteinase K** and appear to polymerize into rod-shaped particles. The purification procedure developed for scrapie prions was found to be useful in purifying the CJD agent. Purification of the 2 infectious pathogens by virtually identical procedures provided further evidence for similarities in their molecular structures. Evidently, the molecular and biologic properties of the CJD agent are sufficiently similar to those of the scrapie **prion protein** that CJD should be classified as a **prion disease**.

L63 ANSWER 45 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1985:302454 BIOSIS
DOCUMENT NUMBER: PREV198579082450; BA79:82450
TITLE: MOLECULAR CHARACTERISTICS OF THE MAJOR SCRAPIE **PRION PROTEIN**.
AUTHOR(S): BOLTON D C [Reprint author]; MCKINLEY M P; PRUSINER S B
CORPORATE SOURCE: DEPARTMENT NEUROLOGY M-794, UNIVERSITY CALIFORNIA, SAN FRANCISCO, USA
SOURCE: Biochemistry, (1984) Vol. 23, No. 25, pp. 58998-5906. CODEN: BICHAW. ISSN: 0006-2960.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB A major protein was identified that purifies with the scrapie agent extracted from infected hamster brains. The protein, designated PrP 27-30, was differentiated from other proteins in purified fractions containing the scrapie agent by its microheterogeneity (MW 27,000-30,000) and its unusual resistance to **protease** digestion. PrP 27-30 was found in all fractions enriched for scrapie prions by discontinuous sucrose gradient sedimentation or sodium dodecyl sarcosinate-agarose gel **electrophoresis**. It is unlikely that PrP 27-30 is a pathologic product because it was found in fractions isolated from the brains of hamsters sacrificed prior to the appearance of histopathology. If PrP 27-30 is present in normal brain, its concentration must be 100-fold lower than that found in equivalent fractions from scrapie-infected hamsters. Three **protease**-resistant proteins similar to PrP 27-30 were found in fraction obtained by discontinuous sucrose gradient sedimentation of scrapie-infected mouse brain. These proteins were not evident in corresponding fractions prepared from normal mouse brain. One-dimensional peptide maps comparing PrP 27-30 and normal hamster brain proteins of similar MW demonstrated that PrP 27-30 has a primary structure which is distinct from these normal proteins. Heating substantially purified scrapie fractions to 100° C in sodium dodecyl sulfate inactivated the prion and rendered PrP 27-30 susceptible to **protease** digestion. Though the scrapie agent appears to be hydrophobic, PrP 27-30 remained in the aqueous phase after extraction with organic solvents, indicating that it is probably not a proteolipid. PrP 27-30 is the first structural component of the scrapie prion to be identified.

L63 ANSWER 46 OF 60 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1985:398864 BIOSIS
DOCUMENT NUMBER: PREV198580068856; BA80:68856
TITLE: SPECIFIC PROTEINS ASSOCIATED WITH **CREUTZFELDT-JAKOB** DISEASE AND SCRAPIE SHARE ANTIGENIC AND CARBOHYDRATE DETERMINANTS.
AUTHOR(S): MANUELIDIS L [Reprint author]; VALLEY S; MANUELIDIS E E
CORPORATE SOURCE: YALE UNIVERSITY SCHOOL MEDICINE, 310 CEDAR STREET, NEW HAVEN, CONN 06510, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1973) Vol. 82, No. 12, pp. 4263-4267.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
Errata; (Correction)
Errata
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Small amounts of brain tissue (2g) infected with **Creutzfeldt-Jakob** disease (CJD) can be fractionated by using a simple 1-day method that includes lysis with N-lauroylsarcosine. Unique fibrils were identified previously in scrapie- and CJD-infected tissue. These fibrils were abundant in final fractions. Preparations from human CJD autopsy material and from experimental hamster and guinea pig CJD all displayed readily identifiable fibrils that were not seen in control preparations. Thus, these methods appear to be of value in biopsy diagnosis of suspected human cases of CJD. Lysis with N-lauroylsarcosine quantitatively solubilized infectivity from membrane-rich fractions. Significant infectivity was recovered in microfractionations. After **proteinase K** digestion, a diffuse band at 29 kDa (kilodalton) was detectable on sodium dodecyl sulfate polyacrylamide gel **electrophoresis**. This 29-kDa material was not present in uninfected control brain and was similar to that seen in scrapie. Protein blots of human, guinea pig and hamster CJD fractions were tested with an antibody raised against a 29-kDa band from mouse scrapie; 29-kDa proteins were labeled in all CJD and scrapie fractions but not in controls. These results indicate that specific proteins in both these diseases share common antigenic determinants. Ricin and wheat germ agglutinin, but not concanavalin A, also labeled a portion of the 29-kDa band from hamster CJD and hamster scrapie fractions, but they did not label any bands in normal hamster fractions at the same gel protein loads. When **proteinase K** treatment was omitted, specific bands of ≈ 35 kDa were detected in CJD samples. These results are consistent with the idea that some CJD- and scrapie-specific proteins are glycoproteins or sialoglycoproteins that can reside in or possibly derive from cell membranes.

L63 ANSWER 47 OF 60 EMBASE
on STN
ACCESSION NUMBER: 97129529 EMBASE
DOCUMENT NUMBER: 1997129529
TITLE: Identification of intermediate steps in the conversion of a mutant prion protein to a Scrapie-like form in cultured cells.
AUTHOR: Daude N.; Lehmann S.; Harris D.A.
CORPORATE SOURCE: D.A. Harris, Dept, of Cell Biology and Physiology, Washington Univ. School of Medicine, 660 South Euclid Ave., St. Louis, MO 63110, United States.
dharris@cellbio.wustl.edu
SOURCE: Journal of Biological Chemistry, (1997) Vol. 272, No. 17,

pp. 11604-11612.
Refs: 49
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 970604
Last Updated on STN: 970604
ED Entered STN: 970604
Last Updated on STN: 970604

AB The central causative event in infectious, familial, and sporadic forms of prion disease is thought to be a conformation change that converts the cellular isoform of the prion protein (PrP(C)) into the scrapie isoform (PrP(SC)) that is the primary constituent of infectious prion particles. To provide a model system for analyzing the mechanistic details of this critical transformation, we have previously prepared cultured Chinese hamster ovary cells that stably express mouse PrP molecules carrying mutations homologous to those seen in familial prion diseases of humans. In the present work, we have analyzed the kinetics with which a PrP molecule containing an insertional mutation associated with Creutzfeldt-Jakob disease acquires several biochemical properties characteristic of PrP(SC). Within 10 min of pulse labeling, the mutant protein undergoes a molecular alteration that is detectable by a change in Triton X-114 phase partitioning and phenyl- Sepharose binding. After 30 min of labeling, a detergent-insoluble and protease-sensitive form of the protein appears. After a chase period of several hours, the protein becomes protease-resistant. Incubation of cells at 18 °C or treatment with brefeldin A inhibits acquisition of detergent insolubility and protease resistance but does not affect Triton X-114 partitioning and phenyl-Sepharose binding. Our results support a model in which conversion of mutant PrPs to a PrP(SC)-like state proceeds in a stepwise fashion via a series of identifiable biochemical intermediates, with the earliest step occurring during or very soon after synthesis of the polypeptide in the endoplasmic reticulum.

L63 ANSWER 48 OF 60 EMBASE
on STN

ACCESSION NUMBER: 97226943 EMBASE
DOCUMENT NUMBER: 1997226943
TITLE: Molecular assessment of the potential transmissibilities of BSE and scrapie to humans.
AUTHOR: Raymond G.J.; Hope J.; Kocisko D.A.; Priola S.A.; Raymond L.D.; Bossers A.; Ironside J.; Will R.G.; Chen S.G.; Petersen R.B.; Gambetti P.; Rubenstein R.; Smits M.A.; Lansbury P.T. Jr.; Caughey B.
CORPORATE SOURCE: G.J. Raymond, BBSRC Institute for Animal Health, Compton Laboratory, Newbury, Berkshire RG20 7NN, United Kingdom.
nes.hope@bbsrc.ac.uk
SOURCE: Nature, (1997) Vol. 388, No. 6639, pp. 285-288.
Refs: 26
ISSN: 0028-0836 CODEN: NATUAS
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
008 Neurology and Neurosurgery
029 Clinical Biochemistry
LANGUAGE: English

SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 970822
Last Updated on STN: 970822
ED Entered STN: 970822
Last Updated on STN: 970822
AB More than a million cattle infected with bovine spongiform encephalopathy (BSE) may have entered the human food chain. Fears that BSE might transmit to man were raised when atypical cases of Creutzfeldt-Jakob disease (CJD), a human transmissible spongiform encephalopathy (TSE), emerged in the UK. In BSE and other TSE diseases, the conversion of the protease- sensitive host prion protein (PrP-sen) to a protease-resistant isoform (PrPres) is an important event in pathogenesis. Biological aspects of TSE diseases are reflected in the specificities of in vitro PrP conversion reactions. Here we show that there is a correlation between in vitro conversion efficiencies and known transmissibilities of BSE, sheep scrapie and CJD. On this basis, we used an in vitro system to gauge the potential transmissibility of scrapie and BSE to humans. We found limited conversion of human PrP-sen to PrP-res driven by PrP-res associated with both scrapie (PrP(Sc)) and BSE (Prp(BSE)). The efficiencies of these heterologous conversion reactions were similar but much lower than those of relevant homologous conversions. Thus the inherent ability of these infectious agents of BSE and scrapie to affect humans following equivalent exposure may be finite but similarly low.

L63 ANSWER 49 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-063247 [07] WPIX
DOC. NO. NON-CPI: N2005-054714
DOC. NO. CPI: C2005-022238
TITLE: Integrated separation and analysis system for analysis and separation of sample components comprises a mass sensitive **detector** with ionization source, a mobile solid phase, a sample component and a transport system and a transport fluid.
DERWENT CLASS: A96 B04 D16 S03 V05
INVENTOR(S): NILSSON, S; SCHWEITZ, L; SPEGEL, P; VIBERG, P
PATENT ASSIGNEE(S): (NILS-I) NILSSON S; (SCHW-I) SCHWEITZ L; (SPEG-I) SPEGEL P; (VIBE-I) VIBERG P
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004238736	A1	20041202	(200507)*		24

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004238736	A1	US 2003-448064	20030530

PRIORITY APPLN. INFO: US 2003-448064 20030530
AB US2004238736 A UPAB: 20050128
NOVELTY - An integrated separation and analysis system comprises mass sensitive detector with ionization source, at least 1 mobile solid phase, at least 1 sample component, at least 1 transport system in which the

mobile solid phase and the sample component are transported, and at least 1 transport fluid in which the sample component is separated at the interface between transport system and mass sensitive detector.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method to separate and analyze at least one sample component with the integrated separation and analysis system, involving:

(a) mixing the sample component with the mobile solid phase;

(b) transporting the solid phase and the sample component with a transport system comprising a transport fluid;

(c) desorbing the sample component from the mobile solid phase;

(d) separating the desorbed sample components from the solid phase; and

(e) analyzing the from the solid phase desorbed and separated sample components with a mass sensitive detector.

USE - The system is useful for qualitative and quantitative analysis and separation of sample components e.g. organic compounds, inorganic compounds, metal-organic compounds, proteins (such as enzymes, hormones, cytokines), peptides (such as oligopeptides and polypeptides), amino acids, nucleic acids (such as DNA or RNA), nucleotides, carbohydrates, lipids, glyco proteins, **prions**, macro molecules (such as cell organelles, cell membranes), viruses, bacteria and pharmaceutical substances (claimed).

ADVANTAGE - The integrated system yields a decrease in sample component losses during separation and analysis of at least one sample, as well as an ability to analyze smaller sample volumes. The system thus saves sample, time and money. Also aging of the solid phase in the separation system is circumvented since a new mobile solid phase is used in every new sample component separation and analysis. The system enables a direct and close contact between the solid phase, which is present in the separation system, and the analysis system. This simplifies the handling of very small sample volumes and sample amounts as well as analysis of sample components with one and only one mobile solid phase particle is enabled. The close contact that is created between the solid phase and the mass analyzer enables sample components, which are present inside the solid phase, to be analyzed. Thus sample losses due to adsorption to the solid phase are thus minimized. Every new sample separated and analyzed will meet an entirely new solid phase. Irreversible adsorptions to the solid phase, which eventually will cause irreversible alterations in the separation system and column aging, are no longer a concern. The repeatability and reproducibility of the system is thus excellent. Extraction of sample components is performed outside the system where after analysis of all in the extraction system present substances is performed without the need for washing and elution. The system is easily be automated and it is also compatible with airborne systems, which further strengthens the extraction process.

Dwg.0/12

ABEX UPTX: 20050128

EXAMPLE - Mobile solid phase particles were synthesized according to the precipitation polymerization technique. Methacrylic acid (MAA) (0.0545 mol/l), methyl methacrylate (MMA) (0.0545 mol/l) and trimethylolpropane trimethacrylate (TRIM) (0.109 mol/l) were dissolved in acetonitrile. 2,2'-Azobis(isobutyronitrile) (AIBN) (radical initiator) (0.0012 mol/l) was added to the mixture and the mixture was degassed using a flow of nitrogen gas for 6 minutes. The polymerization was initiated by UV-light and proceeded over night. The gained particles were washed by centrifugation in AcN (acetonitrile)/acetic acid (75/25 v/v) and in AcN, after which the particles were dried. A capillary electrochromatography (CEC) experiment was performed as follows. A fused silica capillary was used in the experiment. The transport fluid was a mix of AcN and a water

buffer (1:1 v/v). Ammonium carbonate (water buffer) (50 mM) was adjusted to pH=8.2 with ammonia/water (10% v/v), prior to mixing with AcN. Sample solution was prepared by dissolving nortriptyline, salbutamol and diphenhydramine in transport fluid to a concentration of 100 microgram/ml. Mobile solid phase particles were suspended in transport fluid at a concentration of 10, 2.5, 0.44, 0.22 and 0.11 mg/ml. The capillary was filled with mobile solid phase suspended in transport fluid, after which the sample was injected in the capillary hydrodynamically at 5 seconds at 50 mbar. The capillary's injection end was positioned inside a vial containing mobile solid phase suspended in transport fluid, and the separation was started (20 kV (267 V/cm)). The interaction between the analytes in the sample and the mobile solid phase particles was studied by studying changes in the retention times of the analytes at different concentrations of mobile solid phase particles in transport fluid. Due to the fact that the capillary was initially filled with mobile solid phase suspended in transport fluid, and that mobile solid phase suspended in transport fluid was infused into the capillary during the experiment, a constant flow of mobile solid phase particles was continuously flowing out of the capillary and into the ionization source. A mass spectrometric detection was performed. The sheath liquid flow consisted of methanol, water and formic acid (1/1 v/v and 0.1v/v.%) and was pumped and splitted to 6 microl/minute. The separation capillary was coupled to the ionization source with the aid of a coaxial nebulizer at ground potential. The ionization source was orthogonal, i.e. the sheath liquid flow, the gas flow and the flow from the separation capillary were electro sprayed orthogonal to the inlet to the mass analyzer. It was found that graphic analysis showed an electrochromatogram from separations of nortriptyline (peak A), salbutamol (peak B) and diphenhydramine (peak C) at different slurry concentrations (0.11, 0.22 and 0.44 mg/ml; top to bottom). Each chromatogram showed the total ion chromatogram. A significant increase in retention time for nortriptyline and diphenhydramine was seen, which indicated interaction between these molecules and the mobile solid phase particles. Examination of the mass spectrometer showed no signs of mobile solid phase particles entering the mass analyzer (during the total 100 hours the method was used).

L63 ANSWER 50 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-224354 [21] WPIX
CROSS REFERENCE: 2003-765295 [72]; 2005-011135 [01]; 2005-111004 [12]
DOC. NO. NON-CPI: N2004-177179
DOC. NO. CPI: C2004-088517
TITLE: Screening for potential pharmaceutical chemicals for binding to target binder(s), involves **isolating** flow-separated component from solution of potential pharmaceutical chemicals and target binder(s) with **detectable** x-ray fluorescent signal.
DERWENT CLASS: B04 C07 D16 S03
INVENTOR(S): HAVRILLA, G J; LEWIS, C L; MAHAN, C A; MILLER, T C; WARNER, B P; WELLS, C A
PATENT ASSIGNEE(S): (REGC) UNIV CALIFORNIA; (HAVR-I) HAVRILLA G J; (LEWI-I) LEWIS C L; (MAHA-I) MAHAN C A; (MILL-I) MILLER T C; (WARN-I) WARNER B P; (WELL-I) WELLS C A
COUNTRY COUNT: 103
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004017884	A1	20040129	(200421)*		9
WO 2004011898	A2	20040205	(200421)	EN	

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM
ZW

AU 2003267973 A1 20040216 (200453)
EP 1525458 A2 20050427 (200529) EN
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
MC MK NL PT RO SE SI SK TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004017884	A1	US 2002-206524	20020725
WO 2004011898	A2	WO 2003-US20103	20030624
AU 2003267973	A1	AU 2003-267973	20030624
EP 1525458	A2	EP 2003-748920	20030624
		WO 2003-US20103	20030624

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003267973	A1 Based on	WO 2004011898
EP 1525458	A2 Based on	WO 2004011898

PRIORITY APPLN. INFO: US 2002-206524 20020725

AB US2004017884 A UPAB: 20050506

NOVELTY - Potential pharmaceutical chemicals for binding to target binder(s) are screened by, flow separating a solution of potential pharmaceutical chemicals and target binder(s) into at least 2 separated components; exposing flow-separated component(s) to an x-ray excitation beam; and detecting and isolating any flow-separated component having a detectable x-ray fluorescent signal.

DETAILED DESCRIPTION - Screening for potential pharmaceutical chemicals for binding to target binder(s), comprises preparing a solution of potential pharmaceutical chemicals and target binder(s); flow separating the solution into at least 2 separated components; exposing at least one of the flow-separated components to an x-ray excitation beam; detecting an x-ray fluorescent signal emitted from the at least one exposed, flow-separated component; and isolating any flow-separated component having a detectable x-ray fluorescent signal. An INDEPENDENT CLAIM is included for an apparatus for screening potential pharmaceutical chemicals for binding to target binder(s), comprising a container for a solution of potential pharmaceutical chemicals and target binder(s), where the potential pharmaceutical chemicals comprise an element having an atomic number of at least 9; a flow separator for separating the solution into at least 2 separated components; an x-ray excitation source for exposing at least one of the flow-separated components to an x-ray excitation beam; an x-ray detector for detecting an x-ray fluorescent signal emitted from a flow-separated component; and a diverter for diverting the chosen flow-separated component from the remaining mixture.

USE - For screening potential pharmaceutical chemicals for binding to target binders.

ADVANTAGE - The inventive method detects binding events between target binders and potential pharmaceutical chemicals that contain atom(s)

with an atomic number of at least 9 using micro-x-ray fluorescence spectroscopy.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of the apparatus.

Dwg.2/3

L63 ANSWER 51 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-509287 [49] WPIX
DOC. NO. NON-CPI: N2004-402694
DOC. NO. CPI: C2004-188505
TITLE: **Detection** of pathological **prion** proteins, useful for **diagnosis** of **spongiform encephalopathy**, includes precipitation of the protein with an aminoglycoside antibiotic.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): BENCSIK, R A; COLEMAN, A W; MARTIN, A; MOUSSA, A; SHAHGALDIAN, P; PERRON, H
PATENT ASSIGNEE(S): (FRSE-N) AGENCE FR SECURITE SANITAIRES ALIMENTS; (CNRS) CNRS CENT NAT RECH SCI; (UYLY-N) UNIV LYON 1 BERNARD CLAUDE; (INMR) BIOMERIEUX SA
COUNTRY COUNT: 107
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
FR 2849204	A1	20040625	(200449)*		24
WO 2004059321	A1	20040715	(200449)	FR	

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

AU 2003299389	A1	20040722	(200476)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2849204	A1	FR 2002-16382	20021220
WO 2004059321	A1	WO 2003-FR3856	20031219
AU 2003299389	A1	AU 2003-299389	20031219

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003299389	A1	Based on	WO 2004059321

PRIORITY APPLN. INFO: FR 2002-16382 20021220
AB FR 2849204 A UPAB: 20040802
NOVELTY - Detecting or diagnosing the pathological **prion** protein (PrPsc) comprising treating a tissue or fluid sample, derived or obtained from a human or animal, with an antibiotic (I), preferably an aminoglycoside (Ia), is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) use of (Ia) for eliminating PrPsc from tissues or fluids; and

(2) kit for diagnosing PrPsc-related diseases that contains (Ia).

USE - The method is used for diagnosing PrPsc-associated diseases (e.g. scrapie in small ruminants, chronic wasting diseases of elk and antelope, BSE and CJD), particularly to prevent entry of affected animals into the human food chain. (Ia) are also used to eliminate PrPsc from tissues or fluids.

ADVANTAGE - (Ia) concentrates PrPsc by precipitation, eliminating the need for ultracentrifugation.

Dwg.0/6

ABEX UPTX: 20040802

EXAMPLE - Samples containing a fixed amount of pathological prion protein (PrPsc), extracted from the equivalent of 920 microg brain tissue of a sheep with scrapie, were treated with various amounts (0-2000 microg) of streptomycin (Ib), then centrifuged. The supernatant was used in a standard Western blotting assay and the mean molecular weights of the prion bands determined. All the bands (non-glycosylated, mono- or di-glycosylated) showed an increase in molecular weight with increasing concentration of (Ib), with the non-glycosylated form showing an increase at lower concentration than the glycosylated forms. In presence of 2000 microg (Ib), each PrPsc molecule was bound to 10-12 molecules of (Ib).

L63 ANSWER 52 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-636730 [60] WPIX
CROSS REFERENCE: 2004-500283 [47]
DOC. NO. NON-CPI: N2003-506475
DOC. NO. CPI: C2003-174119
TITLE: New **isolated** or recombinant glycosylated adinopectin polypeptide for **diagnosing**, preventing or treating liver diseases or tumor necrosis factor-alpha diseases (e.g. inflammation, allergy, neurodegenerative disease or cancer).
DERWENT CLASS: B04 D16 S03
INVENTOR(S): AIMIN, X; COOPER, G J S; YU, W; WANG, Y; XU, A
PATENT ASSIGNEE(S): (PROT-N) PROTEMIX CORP LTD; (WANG-I) WANG Y; (XUAA-I) XU A; (COOP-I) COOPER G J S
COUNTRY COUNT: 103
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003062275	A1	20030731	(200360)*	EN	207
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 2004023854	A1	20040205	(200411)		
AU 2003206460	A1	20030902	(200422)		
EP 1474445	A1	20041110	(200473)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003062275	A1	WO 2003-NZ2	20030117

US 2004023854	A1	Provisional	US 2002-349885P	20020118
		Provisional	US 2002-436148P	20021223
		Provisional	US 2002-436178P	20021223
			US 2003-349326	20030121
AU 2003206460	A1		AU 2003-206460	20030117
EP 1474445	A1		EP 2003-705539	20030117
			WO 2003-NZ2	20030117

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003206460	A1 Based on	WO 2003062275
EP 1474445	A1 Based on	WO 2003062275

PRIORITY APPLN. INFO: US 2002-436178P 20021223; NZ 2002-516706 20020118; US 2002-349885P 20020118; NZ 2002-523410 20021223; NZ 2002-523411 20021223; US 2002-436148P 20021223

AB WO2003062275 A UPAB: 20041112

NOVELTY - An adinopectin polypeptide that is glycosylated and is recombinant, isolated, purified or synthesized, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a pharmaceutical composition comprising the above polypeptide or an antibody;

(2) a method of diagnosing in an individual the presence of or predisposition towards developing a disease state;

(3) a method for treating a disease state associated with adinopectin polypeptide regulation or aberrant insulin sensitivity;

(4) an article of manufacture comprising or including a vessel, packaging material or delivery unit containing at least the glycosylated adinopectin polypeptide or its agonist, and instructions for use of the polypeptide or its agonist;

(5) a formulation or dosage form capable of delivering an amount of the above polypeptide when administered or self-administered to a human being or other mammal sufficient to treat a disease state associated with adinopectin polypeptide regulation in a mammalian patient, to enhance the effects of insulin or to inhibit gluconeogenesis;

(6) a method of monitoring the therapy of a mammalian individual predisposed to or suffering from a condition associated with the polypeptide regulation, requiring insulin enhancement or requiring gluconeogenesis inhibition;

(7) a method of preparing the above composition comprising the polypeptide;

(8) an antibody specific to the glycoisoforms of the adinopectin polypeptide;

(9) a hybridoma specific to the production of the above antibody;

(**10**) a method of screening for an agent useful in a mammal for enhancing the level of the above polypeptide;

(11) an agent useful for enhancing the level of glycosylated adinopectin polypeptide and is identified by method (**10**);

(12) a method of screening for one or more cells capable of expressing a glycosylated adinopectin polypeptide;

(13) any one or more cells identified and/or isolated and/or purified by method (12); and

(14) a method or assay of measuring adinopectin in a mammalian patient.

ACTIVITY - Hepatotropic; Antidiabetic; Antiinflammatory; Hypotensive; Antiallergic; Neuroprotective; Nootropic; Antilipemic; Cytostatic; Virucide; Cardiovascular.

No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The glycosylated adinopectin polypeptide is useful in preparing a pharmaceutical composition or medicament or dosage unit useful in a mammalian patient to treat a disease state associated with adinopectin polypeptide regulation, to enhance the effects of insulin or to inhibit gluconeogenesis. The polypeptide or its agonist may also be used in treating, preventing or reversing a liver disease (e.g. alcoholic liver disease) or a tumor necrosis factor (TNF)- alpha disease or disorder (e.g. inflammation, allergies, pulmonary hypertension, neurodegenerative disease, hypercholesterolemia, cancer, viral infection or cardiovascular disorder) in a mammalian patient (claimed).

Dwg.0/16

ABEX UPTX: 20030919

ADMINISTRATION - Administration is preferably parenteral (claimed). Other means of administration includes oral, rectal, vaginal, intravesical, intrathecal, intraventricular or intracerebral routes.

No dosage details given.

EXAMPLE - No relevant example given.

L63 ANSWER 53 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-278644 [27] WPIX

DOC. NO. NON-CPI: N2003-221216

DOC. NO. CPI: C2003-072955

TITLE: Capturing, **detecting** and binding **prions** using fibrin and/or fibrinogen **prion**-binding materials, useful for sensitive **prion** **diagnostic** assay systems for screening **prions** in blood fractions, plasma or other biological fluids.

DERWENT CLASS: B04 C06 D16 S03

INVENTOR(S): NAIR, C H; OBRADOVIC, M; WANG, K

PATENT ASSIGNEE(S): (GRAD-N) GRADIPORE LTD

COUNTRY COUNT: 101

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003018633	A1	20030306	(200327)*	EN	38
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW					
US 2003104480	A1	20030605	(200339)		
AU 2002322191	A1	20030310	(200452)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003018633	A1	WO 2002-AU1198	20020902
US 2003104480	A1	US 2002-233788	20020903

AU 2002322191 A1 AU 2002-322191 20020902

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002322191	A1 Based on	WO 2003018633

PRIORITY APPLN. INFO: AU 2001-7409 20010831

AB WO2003018633 A UPAB: 20030429

NOVELTY - Capturing **prions** comprises providing a **prion**-binding material in the form of fibrin(ogen), a fibrin(ogen)-related material, a fibrin(ogen)-derived material or their mixtures, contacting a sample suspected of containing **prions** with the **prion**-binding material, and allowing **prions** present in the sample to bind to or associate with the **prion**-binding material, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) an assay for detecting the presence of **prions** in an animal, comprising obtaining fibrin(ogen), a fibrin(ogen)-related material, a fibrin(ogen)-derived material or their mixtures from an animal, and testing for the presence of **prions** associated with the fibrin(ogen), a fibrin(ogen)-related material, a fibrin(ogen)-derived material or their mixtures;

(2) an assay for detecting **prions**, comprising mixing a sample suspected of containing **prions** with a **prion**-binding material in the form of fibrin(ogen), a fibrin(ogen)-related material, a fibrin(ogen)-derived material or their mixtures, and detecting a change in the **prion**-binding material indicative of the material having **prions** bound to or associated with it; and

(3) separating **prions** from a sample, comprising:

(a) contacting the sample containing **prions** with **prion**-binding material in the form of fibrin(ogen), a fibrin(ogen)-related material, a fibrin(ogen)-derived material or their mixtures, to bind the **prions** with the **prion**-binding material, placing the sample containing the **prions** bound to the **prion**-binding material in a first interstitial volume of an **electrophoresis** apparatus comprising a separation membrane having a defined pore size, a first restriction membrane disposed between a first electrode zone and the separation membrane to define a first interstitial volume, and a second restriction membrane disposed between a second electrode zone, and the separation membrane to define a second interstitial volume;

(b) applying an electric potential between the first and second interstitial volumes where at least some components in the sample other than the bound **prions** are caused to move out of the first interstitial volume through the separation membrane while the bound **prions** in the sample are substantially retained in the first interstitial volume; and

(c) maintaining the previous step until the desired amount of components are removed from the sample containing the bound **prions**.

USE - The fibrin(ogen), fibrin(ogen)-related material and fibrin(ogen)-derived material or their mixtures are useful in the binding, capture or detection of **prions** (claimed). The methods and compositions of the present invention are also useful for sensitive **prion** diagnostic assay system for screening **prions** in blood fractions, plasma or other biological fluids. They can also be used as indicative measures for **prion** surrogate detection and as **prion** clearance devices.

Dwg.0/10

ABEX UPTX: 20030429

WIDER DISCLOSURE - Prions, prion-binding materials and compositions used in the methods and assays of the invention.

EXAMPLE - No example given.

L63 ANSWER 54 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-310989 [30] WPIX

CROSS REFERENCE: 1998-414099 [35]; 1998-414100 [35]; 1998-414105 [35]; 1998-414114 [35]; 1998-427559 [36]; 1998-506364 [43]; 1998-520811 [44]; 1998-609887 [51]; 1999-059865 [05]; 1999-080881 [07]; 1999-120770 [10]; 1999-132229 [11]; 1999-132234 [11]; 1999-190160 [16]; 1999-204988 [17]; 1999-418749 [35]; 1999-430031 [36]; 1999-551363 [46]; 2000-106100 [09]; 2000-126931 [11]; 2000-161128 [14]; 2000-182442 [16]; 2000-195282 [17]; 2000-482826 [42]; 2000-665238 [64]; 2001-425865 [45]; 2001-625724 [72]; 2002-362489 [39]; 2002-574454 [61]; 2002-598780 [64]; 2002-599716 [64]; 2002-634796 [68]; 2002-730795 [79]; 2003-466138 [44]; 2003-492322 [46]; 2003-511926 [48]; 2003-521800 [49]; 2003-531736 [50]; 2003-540138 [51]; 2003-540785 [51]; 2003-540804 [51]; 2003-567105 [53]; 2003-576674 [54]; 2003-829564 [77]; 2003-864797 [80]; 2003-898535 [82]; 2003-901099 [82]; 2004-042167 [04]; 2004-088563 [09]; 2004-131264 [13]; 2004-180094 [17]; 2004-225733 [21]; 2004-479673 [45]; 2004-552662 [53]; 2004-640189 [62]; 2005-293232 [30]

DOC. NO. CPI: C2003-081434

TITLE: New human secreted polypeptides and polynucleotides for **diagnosing**, prognosing, preventing and treating immune, hyperproliferative, liver, kidney, reproductive disorders and for **identifying** modulators of therapeutic use.

DERWENT CLASS: B04 D16

INVENTOR(S): FERRIE, A M; FISCHER, C L; GENTZ, R L; GREENE, J M; KYAW, H; LI, H; LI, Y; MOORE, P A; ROSEN, C A; RUBEN, S M; SOPPET, D R; WEI, Y; YOUNG, P E; ZENG, Z

PATENT ASSIGNEE(S): (FERR-I) FERRIE A M; (FISC-I) FISCHER C L; (GENT-I) GENTZ R L; (GREE-I) GREENE J M; (KYAW-I) KYAW H; (LIHH-I) LI H; (LIYY-I) LI Y; (MOOR-I) MOORE P A; (ROSE-I) ROSEN C A; (RUBE-I) RUBEN S M; (SOPP-I) SOPPET D R; (WEIY-I) WEI Y; (YOUN-I) YOUNG P E; (ZENG-I) ZENG Z; (HUMA-N) HUMAN GENOME SCI INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002172994	A1	20021121	(200330)*		210
US 6878806	B2	20050412	(200525)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2002172994	A1	Provisional	US 1997-40710P	19970314
		Provisional	US 1997-40762P	19970314
		Provisional	US 1997-48100P	19970530

		Provisional	US 1997-48189P	19970530
		Provisional	US 1997-48357P	19970530
		Provisional	US 1997-50934P	19970530
		Provisional	US 1997-48970P	19970606
		Provisional	US 1997-57765P	19970905
		Provisional	US 1997-68368P	19971219
		CIP of	WO 1998-US4858	19980312
		CIP of	US 1998-152060	19980911
		Provisional	US 2001-265583P	20010202
			US 2001-852797	20010511
US 6878806	B2	Provisional	US 1997-40710P	19970314
		Provisional	US 1997-40762P	19970314
		Provisional	US 1997-48100P	19970530
		Provisional	US 1997-48189P	19970530
		Provisional	US 1997-48357P	19970530
		Provisional	US 1997-50934P	19970530
		Provisional	US 1997-48970P	19970606
		Provisional	US 1997-57765P	19970905
		Provisional	US 1997-68368P	19971219
		CIP of	WO 1998-US4858	19980312
		CIP of	US 1998-152060	19980911
		Provisional	US 2001-265583P	20010202
			US 2001-852797	20010511

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6878806	B2 CIP of	US 6448230

PRIORITY APPLN. INFO: US 2001-852797 20010511; US
1997-40710P 19970314; US
1997-40762P 19970314; US
1997-48100P 19970530; US
1997-48189P 19970530; US
1997-48357P 19970530; US
1997-50934P 19970530; US
1997-48970P 19970606; US
1997-57765P 19970905; US
1997-68368P 19971219; WO
1998-US4858 19980312; US
1998-152060 19980911; US
2001-265583P 20010202

AB US2002172994 A UPAB: 20050512

NOVELTY - An isolated polypeptide (I) comprising an amino acid sequence at least 95% identical to sequence of 28 human secreted proteins such as HCEAB46, HCEDH81, HCEDO84, HCUHF89, HELDY41, HFVGR41, HJBCD89, HJTAA17, and HLTBS22, their fragment, polypeptide domain, epitope, secreted form, variant, allelic variant, or species homolog, or the encoded sequence included in ATCC 97921 and 97922, is new.

DETAILED DESCRIPTION - An isolated polypeptide (I) comprising an amino acid sequence at least 95% identical to a sequence (S1) chosen from 28 sequence given in the specification such as 61, 243, 65, 293, 100, 162, 335, 356, 125, or 77 amino acids, their fragment, polypeptide domain, epitope, secreted form, variant, allelic variant, or species homolog, or the encoded sequence included in ATCC 97921 or 97922.

INDEPENDENT CLAIMS are also included for:

(1) an isolated nucleic acid (NA) molecule (II) comprising a nucleotide sequence at least 95% identical to a polynucleotide fragment

having a sequence (S2) chosen from 28 sequences given in the specification such as 2084, 1586, 689, 1348, 1123, 890, 619, 1768, 1699, 736, 1688, 2045, 1101 or 1659 bp given in the specification, a polynucleotide encoding (I), a polynucleotide which is the variant or allelic variant of (II), or a polynucleotide capable of hybridizing under stringent conditions to any one of the above polynucleotides, which does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A or T residues;

(2) a recombinant vector comprising (II);
(3) making a recombinant host cell comprising (II);
(4) a recombinant host cell produced by the above method;
(5) an isolated antibody (III) that binds specifically to (I);
(6) a recombinant host cell (IV) that expresses (I);
(7) preparing (I);
(8) the polypeptide produced by the above method;
(9) the gene corresponding to cDNA sequence of (S2);
(10) identifying an activity in a biological sample, by expressing (I) in a cell, isolating the supernatant, detecting an activity in a biological sample and identifying the protein in the supernatant having the activity; and
(11) the product produced by the above method.

ACTIVITY - Immunostimulant; Immunosuppressive; Dermatological; Antirheumatic; Antiarthritic; Neuroprotective; Antithyroid; Antianemic; Antidiabetic; Nephrotropic; Antiinflammatory; Antibacterial; Vasotropic; Vulnerary; Antiasthmatic; Antiallergic; Cytostatic; Cerebroprotective; Antiparkinsonian; Nootropic; Cardiant; Antiatherosclerotic; Anti-HIV; Hepatotropic; Antigout; Tranquilizer; Virucide; Gynecological; Fungicide; Antiparasitic; Thrombolytic.

No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - (I) and (II) are useful for diagnosing a pathological condition or susceptibility to a pathological condition in a subject, and for preventing, treating or ameliorating a medical condition. (I) is also useful for identifying a binding partner to the polypeptide (claimed). (I), (II) and (III) are useful in treating, preventing, diagnosing and/or prognosing immunodeficiencies, e.g., X-linked agammaglobulinemia, B cell immunodeficiencies, severe combined immunodeficiencies, autoimmune disorders e.g., systemic erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis, autoimmune hemolytic anemia, Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis, hematopoietic disorders, inflammatory conditions including septic shock, sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease, respiratory disorders (e.g., asthma and allergy), gastrointestinal disorders (e.g., inflammatory bowel disease) cancers (e.g., gastric, ovarian, lung, bladder, liver and breast), central nervous system (CNS) disorders e.g., multiple sclerosis, ischemic brain injury and/or stroke, traumatic brain injury, neurodegenerative disorders e.g., Parkinson's disease and Alzheimer's disease, AIDS-related dementia, and **prion** disease, cardiovascular disorders e.g., atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary bypass complications, as well as many additional diseases, conditions, and disorders that are characterized by inflammation e.g., hepatitis, rheumatoid arthritis, gout, trauma, pancreatitis, sarcoidosis, dermatitis, and allogenic transplant rejection.

(I), (II) and (III) are useful for treating blood-related disorder (thrombosis, arterial thrombosis, atherosclerosis), hyperproliferative disorders, renal disorders. e.g. acute glomerulonephritis, endocrine disorders e.g., Addison disease, hyperthyroidism, hyperpituitarism, liver diseases and disorders, reproductive system disorders e.g. endometriosis,

infectious diseases, and pancreatic disorders. They also useful as a vaccine adjuvant that enhances immune responsiveness to an antigen, as a adjuvant to enhance tumor-specific immune responses, anti-viral, anti-bacterial, anti-fungal, anti-parasitic immune responses. Further they are useful as stimulators of B cell responsiveness to pathogens, as an activator of T cells, as an agent to boost immunoresponsiveness among aged populations and/or neonates, as a stimulator of cytokines, To enhance or inhibit complement mediated cell lysis, for stimulating wound and tissue repair, angiogenesis, and the repair of vascular or lymphatic diseases or disorders.

(I) stimulates neuronal growth and to treat, prevent, and/or diagnose neuronal damage which occurs in certain neuronal disorders or neuro-degenerative conditions, for stimulating keratinocyte growth, to prevent hair loss, to modulate mammalian characteristics such as body height, weight, hair color, and to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. (I) is also useful as a molecular weight markers on sodium dodecyl sulfate-polacrylamide gel **electrophoresis** (SDS-PAGE) gels, and to raise antibodies.

(II) is useful for chromosome identification, radiation hybrid mapping, in gene therapy, for identifying individuals from minute biological samples, as additional DNA markers for restriction fragment length polymorphism (RFLP), in forensic biology, molecular weight markers on Southern gels, as diagnostic probes for the presence of a specific mRNA in a particular cell type, to raise anti-DNA antibodies using DNA immunization techniques, and as an antigen to elicit an immune response.

(III) is useful for immunophenotyping cell lines and biological samples and for diagnosing and treating diseases, disorders or conditions. (III) is also useful to assay protein levels in a biological sample.

Dwg.0/0

ABEX UPTX: 20030513

WIDER DISCLOSURE - Also disclosed are:
(1) T-cell-antigen receptors which immunospecifically bind (I);
(2) polynucleotides comprising nucleotide sequence encoding (III);
(3) antibodies recombinantly fused or chemically conjugated to (I);
(4) compositions comprising (I) fused or conjugated to anti body domains other than the variable domains;
(5) fragments of (III);
(6) kit comprising containers filled with pharmaceutical composition comprising (I), (II) or (III);
(7) polypeptides which are differentially modified during or after translation, e.g., by glycosylation, acetylation, phosphorylation; and
(8) chemically modified derivatives of (I).

ADMINISTRATION - Administered by intradermal, intramuscular, intraperitoneal, intravenous, subcutaneous, intranasal, epidural, and oral route.
(III) is administered at a dose of 0.1-100 mg/kg and (II) is administered in dose of 0.05 mg-50 mg/kg.

EXAMPLE - Genomic clones corresponding to human secreted polynucleotides were isolated. A human genomic P1 library was screened by polymerase chain reaction (PCR) using primers selected for cDNA sequence corresponding to a sequence of bp given in the 2084, 1586, 689, 1348, 1123, 890, 619, 1768, 1699, 736, 1688, 2045, 1101 or 1659 specification. Human secreted proteins, HCEAB46, HCEDH81, HCEDO84, HCUHF89, HELDY41, HFVGR41, HJBCD89, HJTAA17, and HLTBS22, of 89, 83, 145, 188, 167, 156, 84, 465, 230, or 283 amino acids given in the specification were isolated and characterized.

L63 ANSWER 55 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-247131 [24] WPIX
CROSS REFERENCE: 2002-154631 [20]
DOC. NO. NON-CPI: N2003-196380
DOC. NO. CPI: C2003-063530
TITLE: Separation or **identification** of intact microbes by obtaining sample comprising intact microbes/cells, introducing sample into capillary tube, and separating the microbes/cells in fluid using electric field.
DERWENT CLASS: B04 C07 D13 D16 J04 S03 S05
INVENTOR(S): ARMSTRONG, D
PATENT ASSIGNEE(S): (ARMS-I) ARMSTRONG D
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002148729	A1	20021017 (200324)*		31	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002148729	A1 CIP of	US 2000-603446	20000623
		US 2002-83845	20020226

PRIORITY APPLN. INFO: US 2002-83845 20020226; US 2000-603446 20000623

AB US2002148729 A UPAB: 20030410
NOVELTY - Separating and identifying intact microbes comprising obtaining a sample comprising intact microbes/cells from a substrate containing them, introducing the sample into passageway (**10**) having a fluid, separating the microbes/cells in the fluid using an electric field while maintaining the microbes/cells intact, and analyzing the separated microbes/cells to identify them, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a microfluidic device comprising an injector, passageway, detector, or central processing unit. The detector is Mei light sputtering apparatus or laser induced fluorescence apparatus for detecting microbes/cells.

USE - The method is useful for separating, identifying, quantifying, and evaluating intact microbes in food, medical, or biotechnology industry or in military applications. It is useful in identifying diseases caused by the microbes.

ADVANTAGE - The inventive process allows for fast and accurate separation, identification, quantification, and evaluation of alive or dead while maintaining them intact. It also allows determination of viability of microbes. Therefore, it allows evaluation of binding affinity of the microbes with drugs or other substances, and identification of unwanted pathogen in water, germ warfare, environmental control and pollution detection, bioremediation, assays for products that contains microbes, fermentation, food processing, biotechnology, soil monitoring an purification, agriculture, animal husbandry and veterinary science, study of microbes, study of microbes spores, or spore formation

DESCRIPTION OF DRAWING(S) - The figure shows a microfluidic device for carrying out the inventive method.

Passageway **10**

Dwg.11/17

ABEX UPTX: 20030410

EXAMPLE - No suitable example given.

L63 ANSWER 56 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-731367 [79] WPIX
CROSS REFERENCE: 2001-451924 [48]; 2001-451925 [48]; 2001-451926 [48]; 2001-451927 [48]; 2001-451928 [48]; 2001-451929 [48]; 2001-451930 [48]; 2001-451931 [48]; 2001-451932 [48]; 2001-451936 [48]; 2001-451937 [48]; 2001-457716 [49]; 2001-457717 [49]; 2001-457723 [49]; 2001-457724 [49]; 2001-457725 [49]; 2001-457726 [49]; 2001-457727 [49]; 2001-457728 [49]; 2001-465460 [50]; 2001-465557 [50]; 2001-465558 [50]; 2001-465559 [50]; 2001-465560 [50]; 2001-465565 [50]; 2001-465566 [50]; 2001-465567 [50]; 2001-465568 [50]; 2001-465569 [50]; 2001-465570 [50]; 2001-465572 [50]; 2001-465573 [50]; 2001-465577 [50]; 2001-476159 [51]; 2001-476160 [51]; 2001-476161 [51]; 2001-476181 [51]; 2001-476182 [51]; 2001-476195 [51]; 2001-476208 [51]; 2001-476220 [51]; 2001-476222 [51]; 2001-476223 [51]; 2001-476224 [51]; 2001-476225 [51]; 2001-483227 [52]; 2001-483232 [52]; 2001-483426 [52]; 2001-488743 [53]; 2001-488776 [53]; 2001-488777 [53]; 2001-488781 [53]; 2001-488782 [53]; 2001-488783 [53]; 2001-488784 [53]; 2001-488785 [53]; 2001-488786 [53]; 2001-488787 [53]; 2001-496846 [54]; 2001-502629 [55]; 2001-502630 [55]; 2001-502866 [55]; 2001-514652 [56]; 2001-530113 [58]; 2001-541497 [60]; 2001-541565 [60]; 2001-565185 [63]; 2001-565190 [63]; 2001-581633 [65]; 2001-611720 [70]; 2001-639119 [73]; 2002-122018 [16]; 2002-147878 [19]; 2002-257198 [30]; 2002-381944 [41]; 2002-405050 [43]; 2002-453715 [48]; 2002-470713 [50]; 2002-489586 [52]; 2002-608160 [65]; 2002-635684 [68]; 2002-642242 [69]; 2002-642253 [69]; 2002-642377 [69]; 2002-665432 [71]; 2002-681727 [73]; 2002-690611 [74]; 2002-705875 [76]; 2003-128199 [12]; 2003-147444 [14]; 2003-174087 [17]; 2003-182526 [18]; 2003-198289 [19]; 2003-219994 [21]; 2003-265788 [26]; 2003-311001 [30]; 2003-416807 [39]; 2003-447703 [42]; 2003-447704 [42]; 2003-492122 [46]; 2003-512305 [48]; 2003-605749 [57]; 2003-605750 [57]; 2003-615767 [58]; 2003-615993 [58]; 2003-625420 [59]; 2003-634869 [60]; 2003-634870 [60]; 2003-695890 [66]; 2003-695900 [66]; 2003-708342 [67]; 2003-708345 [67]; 2003-719985 [68]; 2003-743747 [70]; 2003-743765 [70]; 2003-743766 [70]; 2003-765398 [72]; 2003-765402 [72]; 2003-765403 [72]; 2003-765488 [72]; 2003-786903 [74]; 2003-786918 [74]; 2003-787333 [74]; 2003-801167 [75]; 2003-801192 [75]; 2003-829398 [77]; 2003-901052 [82]; 2003-902033 [82]; 2004-080168 [08]; 2004-081713 [08]; 2004-090458 [09]; 2004-108205 [11]; 2004-122079 [12]; 2004-141549 [14]
DOC. NO. CPI: C2002-207150
TITLE: New colorectal cancer polypeptide for **diagnosing**, prognosing, preventing, and treating immune, hyperproliferative, liver, kidney, reproductive disorders and for **identifying** modulators of therapeutic use.
DERWENT CLASS: B04 D16
INVENTOR(S): BARASH, S C; ROSEN, C A; RUBEN, S M
PATENT ASSIGNEE(S): (BARA-I) BARASH S C; (ROSE-I) ROSEN C A; (RUBE-I) RUBEN S M

COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002119919	A1	20020829	(200279)*		183

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002119919	A1 Provisional	US 2000-179065P	20000131
		US 2001-764855	20010117

PRIORITY APPLN. INFO: US 2000-179065P 20000131; US 2001-764855 20010117

AB US2002119919 A UPAB: 20040226
NOVELTY - An isolated polypeptide (I) comprising an amino acid sequence 90 % identical to 74 sequences of e.g. HCLHD88, HCQCR67, HCRMC26, HCRMJ47 and HCRMP18, their fragments, polypeptide domains, epitopes, variants, allelic variants, full length proteins, species homologs or the encoded sequence of a defined amino acid sequence (S1) given in specification, is new.

DETAILED DESCRIPTION - A new isolated polypeptide (I) comprises a sequence 90 % identical to a sequence (S1) chosen from 74 sequences containing defined amino acids given in the specification (their fragments, polypeptide domains, epitopes, variants, allelic variants, full length proteins, species homologs or encoded sequences).

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid (NA) molecule (II) comprising:

(a) a nucleotide sequence 95 % identical to a polynucleotide fragment having a sequence (S2) chosen from 74 sequences of defined base pairs (bp), given in the specification;

(b) a polynucleotide encoding (I);

(c) a polynucleotide which is the variant or allelic variant of (II); or

(d) a polynucleotide capable of hybridizing under stringent conditions to any one of (a) - (c), which does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only a or t residues;

(2) a recombinant vector comprising (II);

(3) making a recombinant host cell comprising (II);

(4) a recombinant host cell produced by (3);

(5) an isolated antibody (III) that binds specifically to (I);

(6) a recombinant host cell (IV) that expresses (I);

(7) preparing (I);

(8) the polypeptide produced by (7);

(9) the gene corresponding to the cDNA sequence of (S2);

(**10**) identifying a binding partner to (I) comprising:

(a) contacting (I) with a binding partner; and

(b) determining whether the binding partner effects an activity of (I);

(11) identifying an activity in a biological sample, comprising:

(a) expressing (S2) in a cell;

(b) isolating the supernatant;

(c) detecting an activity in a biological assay; and

(d) identifying the protein in the supernatant having the activity; and

(12) the product produced by (**10**).

ACTIVITY - Immunostimulant; Immunosuppressive; Dermatological; Antirheumatic; Antiarthritic; Neuroprotective; Antithyroid; Antianemic; Antidiabetic; Nephrotropic; Antiinflammatory; Antibacterial; Vasotropic; Vulnerary; Antiasthmatic; Antiallergic; Cytostatic; Cerebroprotective; Antiparkinsonian; Nootropic; Cardiant; Antiatherosclerotic; Anti-HIV; Hepatotropic; Antigout; Tranquilizer; Virucide; Fungicide; Antiparasitic. Test details are described but no results are given.

MECHANISM OF ACTION - Gene therapy; Antibody therapy; B cell responsiveness stimulator; T cells activator; Cytokine stimulator; Complement mediated cell lysis modulator; Angiogenesis stimulator; Neuronal growth stimulator; Vaccine.

USE - (I) and nucleic acid (II) encoding (I) are used to diagnose a pathological condition or susceptibility to a pathological condition in a subject and to prevent, treat or ameliorate a medical condition. (I) is used to identify a binding partner to the polypeptide (claimed). (II) is used for chromosome identification, radiation hybrid mapping, in gene therapy, for identifying individuals from minute biological samples, as additional DNA markers for restriction fragment length polymorphism (RFLP), in forensic biology, molecular weight markers on Southern gels, as diagnostic probes for the presence of a specific mRNA in a particular cell type, to raise anti-DNA antibodies using DNA immunization techniques, and as an antigen to elicit an immune response. An antibody (III) to (I) is used to purify, detect and target the polypeptide including both in vitro and in vivo diagnostic and therapeutic methods, and also in an immunoassay for quantitatively and qualitatively measuring levels of polypeptide in the biological sample. (III) is used for immunophenotyping cell lines and biological samples and for diagnosing and treating diseases, disorders or conditions. (I), (II) and (III) are used in treating, preventing, diagnosing and/or prognosing immunodeficiencies, e.g., X-linked agammaglobulinemia, B cell immunodeficiencies, severe combined immunodeficiencies, autoimmune disorders e.g., systemic erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis, autoimmune hemolytic anemia, Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis, hematopoietic disorders, inflammatory conditions including septic shock, sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease, respiratory disorders (e.g., asthma and allergy), gastrointestinal disorders (e.g., inflammatory bowel disease) cancers (e.g., gastric, ovarian, lung, bladder, liver and breast), central nervous system (CNS) disorders e.g., multiple sclerosis, ischemic brain injury and/or stroke, traumatic brain injury, neurodegenerative disorders e.g., Parkinson's disease and Alzheimer's disease, acquired immunodeficiency syndrome (AIDS)-related dementia, and **prion** disease, cardiovascular disorders e.g., atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary bypass complications, as well as many additional diseases, conditions, and disorders that are characterized by inflammation e.g., hepatitis, rheumatoid arthritis, gout, trauma, pancreatitis, sarcoidosis, dermatitis, and allogenic transplant rejection. (I), (II) and (III) are used in treating a blood-related disorder (thrombosis, or atherosclerosis), hyperproliferative disorders, renal disorders. e.g. acute glomerulonephritis, endocrine disorders e.g., Addison disease, hyperthyroidism, hyperpituitarism, reproductive system disorders e.g. endometriosis, infectious diseases, and pancreatic disorders. They are also used as a vaccine adjuvant that enhances immune responsiveness to an antigen, as a adjuvant to enhance tumor-specific immune responses, anti-viral, anti-bacterial, anti-fungal, anti-parasitic immune responses. They are used as stimulators of B cell responsiveness to pathogens, as an activator of T cells, as an agent to boost immunoresponsiveness among aged populations and/or neonates, as a stimulator of cytokines, to enhance or

inhibit complement mediated cell lysis, for stimulating wound and tissue repair, angiogenesis, and the repair of vascular or lymphatic diseases or disorders. (I) stimulates neuronal growth and treats, prevents, and/or diagnoses neuronal damage which occurs in certain neuronal disorders or neuro-degenerative conditions, stimulates keratinocyte growth, prevents hair loss, modulates mammalian characteristics such as body height, weight, hair color, and increases or decreases storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. (I) is used as a molecular weight marker on sodium dodecyl sulfate-polyacrylamide gel **electrophoresis** (SDS-PAGE) gels, and raises antibodies.
Dwg.0/0

ABEX UPTX: 20021209

WIDER DISCLOSURE - Also disclosed are:
(1) polynucleotides comprising nucleotide sequence encoding (III);
(2) antibodies recombinantly fused or chemically conjugated to (I);
(3) compositions comprising (I) fused or conjugated to antibody domains other than the variable domains;
(4) fragments of (III);
(5) a kit comprising containers filled with pharmaceutical composition comprising (I), (II) or (III);
(6) polypeptides which are differentially modified during or after translation, e.g., by glycosylation, acetylation, phosphorylation; and
(7) chemically modified derivatives of (I).
ADMINISTRATION - Administered by intradermal, intramuscular, intraperitoneal, intravenous, subcutaneous, intranasal, epidural, or oral route. An antibody (III) to (I) is administered at a dose of 0.1 - 100 mg/kg/body weight, preferably 0.1 - 20 mg/kg/body weight and most preferably 1 - 10 mg/kg/body weight.

EXAMPLE - Genomic clones corresponding to human secreted polynucleotides were isolated. A human genomic P1 library was screened by a polymerase chain reaction (PCR) using primers selected for a cDNA sequence corresponding to one of 74 sequences of e.g. HCLHD88, HCQCR67, HCRMC26, HCRMJ47 and HCRMP18 with defined base pairs, given in the specification.

L63 ANSWER 57 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-598780 [64] WPIX
CROSS REFERENCE: 1998-414099 [35]; 1998-414100 [35]; 1998-414105 [35]; 1998-414114 [35]; 1998-427559 [36]; 1998-506364 [43]; 1998-520811 [44]; 1998-609887 [51]; 1999-059865 [05]; 1999-080881 [07]; 1999-120770 [10]; 1999-132229 [11]; 1999-132234 [11]; 1999-190160 [16]; 1999-204988 [17]; 1999-418749 [35]; 1999-430031 [36]; 1999-551363 [46]; 2000-106100 [09]; 2000-126931 [11]; 2000-161128 [14]; 2000-182442 [16]; 2000-195282 [17]; 2000-482826 [42]; 2000-665238 [64]; 2001-425865 [45]; 2001-625724 [72]; 2002-362489 [39]; 2002-574454 [61]; 2002-599716 [64]; 2002-634796 [68]; 2002-730795 [79]; 2003-310989 [30]; 2003-466138 [44]; 2003-492322 [46]; 2003-511926 [48]; 2003-521800 [49]; 2003-531736 [50]; 2003-540138 [51]; 2003-540785 [51]; 2003-540804 [51]; 2003-567105 [53]; 2003-576674 [54]; 2003-829564 [77]; 2003-864797 [80]; 2003-898535 [82]; 2003-901099 [82]; 2004-042167 [04]; 2004-088563 [09]; 2004-131264 [13]; 2004-180094 [17]; 2004-225733 [21]; 2004-479673 [45]; 2004-552662 [53]; 2004-640189 [62]; 2005-293232 [30]
DOC. NO. CPI: C2002-168975
TITLE: Novel human secreted polypeptides and polynucleotides for

diagnosing, preventing, treating immune, hyperproliferative, cardiovascular, neurological, reproductive disorders and **identifying** modulators of therapeutic use.

DERWENT CLASS: B04 D16

INVENTOR(S): FERRIE, A M; FISCHER, C L; GENTZ, R L; GREENE, J M; KYAW, H; LI, H; LI, Y; MOORE, P A; ROSEN, C A; RUBEN, S M; SOPPET, D R; WEI, Y; YOUNG, P E; ZENG, Z

PATENT ASSIGNEE(S): (FERR-I) FERRIE A M; (FISC-I) FISCHER C L; (GENT-I) GENTZ R L; (GREE-I) GREENE J M; (KYAW-I) KYAW H; (LIHH-I) LI H; (LIYY-I) LI Y; (MOOR-I) MOORE P A; (ROSE-I) ROSEN C A; (RUBE-I) RUBEN S M; (SOPP-I) SOPPET D R; (WEIY-I) WEI Y; (YOUN-I) YOUNG P E; (ZENG-I) ZENG Z

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002077287	A1	20020620 (200264)*			209

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002077287	A1 CIP of	US 1998-152060	19980911
		US 2001-852659	20010511

PRIORITY APPLN. INFO: US 2001-852659 20010511; US 1998-152060 19980911

AB US2002077287 A UPAB: 20050512

NOVELTY - An isolated secreted polypeptide (I) comprising an amino acid sequence at least 95% identical to a sequence chosen from 39 human secreted proteins, having a sequence of specific amino acids given in the specification such as 61, 243, 65, 57, 52, 296, 100, 293, 162 or 356 amino acids, their fragment, polypeptide domain, epitope, secreted form, variant, allelic variant, or species homolog, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid (NA) molecule (II) comprising a nucleotide sequence at least 95% identical to a polynucleotide fragment having a sequence (S2) chosen from 39 sequences given in the specification such as 2084, 1586, 1907, 689, 2350, 1348, 1123, 1114, 890 or 736 base pairs (bp) given in the specification, a polynucleotide encoding (I), a polynucleotide which is the variant or allelic variant of (II), a polynucleotide which encodes a species homolog of (I), or a polynucleotide capable of hybridizing under stringent conditions to any one of the above polynucleotides, which does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A or T residues;

(2) a recombinant vector comprising (II);

(3) making a recombinant host cell comprising (II);

(4) a recombinant host cell produced by the above method;

(5) an isolated antibody (III) that binds specifically to (I);

(6) a recombinant host cell (IV) that expresses (I);

(7) preparing (I);

(8) a polypeptide produced by the above method;

(9) a gene corresponding to cDNA sequence of (S2);

(**10**) identifying an activity in a biological assay, by

expressing (II) in a cell, isolating the supernatant, detecting an activity in a biological assay and identifying the protein in the supernatant having the activity; and

(11) the product produced by the above method.

ACTIVITY - Immunostimulant; Dermatological; Antirheumatic; Antiarthritic; Neuroprotective; Antithyroid; Antianemic; Antidiabetic; Nephrotropic; Antiinflammatory; Antibacterial; Vasotropic; Vulnerary; Antiasthmatic; Antiallergic; Cytostatic; Cerebroprotective; Antiparkinsonian; Nootropic; Cardiant; Antiatherosclerotic; Anti-HIV; Immunosuppressive; Hepatotropic; Antigout; Tranquilizer; Virucide; Antiarrhythmic; Gynecological; Fungicide; Antiparasitic; Thrombolytic. Test details given but no results are given.

MECHANISM OF ACTION - Gene therapy; Antibody-based therapy; Modulator of (I).

USE - (I) and (II) are useful for diagnosing a pathological condition or susceptibility to a pathological condition in a subject and for preventing, treating or ameliorating a medical condition. (I) is also useful for identifying a binding partner to the polypeptide (claimed). (I), (II) and (III) are useful in treating, preventing, diagnosing and/or prognosing immunodeficiencies, e.g., X-linked agammaglobulinemia, B cell immunodeficiencies, severe combined immunodeficiencies, autoimmune disorders e.g., systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis, autoimmune hemolytic anemia, Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis, hematopoietic disorders, inflammatory conditions including septic shock, sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease, respiratory disorders (e.g., asthma and allergy), gastrointestinal disorders (e.g., inflammatory bowel disease), cancers (e.g., gastric, ovarian, lung, bladder, liver and breast), central nervous system (CNS) disorders e.g., ischemic brain injury and/or stroke, traumatic brain injury, neurodegenerative disorders e.g., Parkinson's disease and Alzheimer's disease, AIDS-related dementia, and **prion** disease, cardiovascular disorders e.g., atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary bypass complications, as well as many additional diseases, conditions, and disorders that are characterized by inflammation e.g., hepatitis, gout, trauma, pancreatitis, sarcoidosis, and allogenic transplant rejection. (I), (II) and (III) are useful for treating blood-related disorder (thrombosis, arterial thrombosis, atherosclerosis), hyperproliferative disorders, renal disorders. e.g. acute glomerulonephritis, cardiovascular disorder e.g. arrhythmias, heart aneurysm, congestive heart failure, respiratory disorders e.g. rhinitis, sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis, neurological diseases, liver disorders, endocrine disorders e.g., Addison disease, hyperthyroidism, hyperpituitarism, reproductive system disorders e.g. endometriosis, infectious diseases, and gastrointestinal disorders. They also useful as a vaccine adjuvant that enhances immune responsiveness to an antigen, as a adjuvant to enhance tumor-specific immune responses, anti-viral, anti-bacterial, anti-fungal, anti-parasitic immune responses. Further they are useful as stimulators of B cell responsiveness to pathogens, as an activator of T cells, as an agent to boost immunoresponsiveness among aged populations and/or neonates, as a stimulator of cytokines, to enhance or inhibit complement mediated cell lysis, for stimulating wound and tissue repair, angiogenesis, and the repair of vascular or lymphatic diseases or disorders. (I) stimulates neuronal growth and to treat, prevent, and/or diagnose neuronal damage which occurs in certain neuronal disorders or neuro-degenerative conditions, for stimulating keratinocyte growth, to prevent hair loss, to modulate mammalian characteristics such as body height, weight, hair color, and to increase or decrease storage

capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. (I) is also useful as a molecular weight markers on sodium dodecyl sulfate-polyacrylamide gel **electrophoresis** (SDS-PAGE) gels, and to raise antibodies. (II) is useful for chromosome identification, radiation hybrid mapping, in gene therapy, for identifying individuals from minute biological samples, as additional DNA markers for restriction fragment length polymorphism (RFLP), in forensic biology, molecular weight markers on Southern gels, as diagnostic probes for the presence of a specific mRNA in a particular cell type, to raise anti-DNA antibodies using DNA immunization techniques, and as an antigen to elicit an immune response. (III) is useful for immunophenotyping cell lines and biological samples and for diagnosing and treating diseases, disorders or conditions. (III) is also useful to assay protein levels in a biological sample.

Dwg.0/0

ABEX UPTX: 20021007

WIDER DISCLOSURE - Also disclosed are:
(1) transgenic animals comprising (II);
(2) polynucleotides comprising nucleotide sequence encoding (III);
(3) antibodies recombinantly fused or chemically conjugated to (I);
(4) compositions comprising (I) fused or conjugated to anti body domains other than the variable domains;
(5) fragments of (III); and
(6) kit comprising containers filled with pharmaceutical composition comprising (I), (II) or (III).

ADMINISTRATION - Administered by intradermal, intramuscular, intraperitoneal, intravenous, subcutaneous, intranasal, epidural, and oral route. (III) is administered at a dose of 0.1-100 mg/kg and (II) is administered in dose of 0.05 mg-50 mg/kg.

EXAMPLE - Genomic clones corresponding to human secreted polynucleotides were isolated. A human genomic P1 library was screened by polymerase chain reaction (PCR) using primers selected for cDNA sequence corresponding to a sequence of 2084, 1586, 1907, 689, 2350, 1348, 1123, 1114, 890 or 736 base pairs (bp) given in the specification. 39 human secreted proteins having specific amino acid sequence given in the specification, such as 61, 243, 65, 57, 52, 296, 100, 293, 162 or 356 amino acids were isolated and characterized.

L63 ANSWER 58 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-179481 [23] WPIX
DOC. NO. NON-CPI: N2002-136503
DOC. NO. CPI: C2002-055684
TITLE: Determining amount of bound ligand, useful for **identifying** and classifying ligands, by incubating target molecule with test and reference ligands.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): BERTLING, W; HOEFNER, G; WANNER, K T; WANNER, K
PATENT ASSIGNEE(S): (NOVE-N) NOVEMBER GES MOLEKULARE MEDIZIN AG; (NOVE-N) NOVEMBER GES MOLEKULARE MED AG
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001094943	A2	20011213	(200223)*	GE	38

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ

NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DK DM
DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001068944 A 20011217 (200225)
DE 10028186 A1 20020919 (200262)
EP 1325328 A2 20030709 (200345) GE
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001094943	A2	WO 2001-DE2086	20010606
AU 2001068944	A	AU 2001-68944	20010606
DE 10028186	A1	DE 2000-10028186	20000609
EP 1325328	A2	EP 2001-947182	20010606
		WO 2001-DE2086	20010606

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001068944	A	Based on	WO 2001094943
EP 1325328	A2	Based on	WO 2001094943

PRIORITY APPLN. INFO: DE 2000-10028186 20000609

AB WO 200194943 A UPAB: 20020411

NOVELTY - Method for determining the amount of ligand (L) bound to a target molecule (M).

DETAILED DESCRIPTION - M is

(a) incubated in a mixed phase that contains a known amount of L in native form;

(b) bound L is separated in a way that keeps the amount of unbound L constant;

(c) the amount of unbound L left in the mixed phase is determined and

(d) the amount of bound L is determined by difference. The mixed phase also contains a different ligand (L') that functions, in part, as reference.

An INDEPENDENT CLAIM is also included for a combination of ligands for the process in which at least the amount of L' can be determined in step (d).

USE - The method is used to identify ligands and to grade them according to affinity.

ADVANTAGE - The method allows ligands that are difficult to quantify directly to be determined by measuring only the amount of reference ligand remaining unbound. Since ligands are in native form, binding results are not affected by labeling or immobilization and the method does not involve a washing stage (which alters the binding equilibrium), so results are precise. The method is simple and rapid. The use of several different L' allows affinity of unknown ligands to be estimated.

Dwg.0/3

ABEX UPTX: 20020411

EXAMPLE - A test mixture comprised (i) 50 nM humanmu-opioid receptor (membrane preparation from transformed cells); (ii) 100 nM (25 pmole) each of morphine, codeine and tramatol (ligands) and (iii) 50 mM Tris-hydrochloride/5 mM magnesium chloride, pH 7.4, in total volume 0.25

ml. The mixture was incubated for 150 min at 25degreesC then the membranes removed by centrifuging. The supernatant was analyzed for unbound ligands by chromatography on LiChrosorb 60RP with detection by tandem mass spectrometry, to indicate 13.2, 24.1 and 24.3 pmole of morphine, codeine and tramatol, respectively. The amounts of these ligands bound were thus 11.8, 0.9 and 0.7 pmole, indicating that morphine has by far the highest affinity.

L63 ANSWER 59 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-049947 [06] WPIX
DOC. NO. CPI: C2001-013761
TITLE: **Isolating** nucleic acid that interacts with **protease**-sensitive **prion** protein, useful for **diagnosis** and treatment of transmissible **spongiform encephalopathies**.
DERWENT CLASS: B04 D16
INVENTOR(S): WEISS, S
PATENT ASSIGNEE(S): (LASM-I) LASMEZAS C I; (WEIS-I) WEISS S
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000073501	A2	20001207	(200106)*	GE	48
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
DE 19925073	A1	20010315	(200116)		
AU 2000055277	A	20001218	(200118)		
EP 1100958	A2	20010523	(200130)	GE	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
DE 19925073	C2	20010719	(200141)		
JP 2003501050	W	20030114	(200306)		47

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000073501	A2	WO 2000-EP5020	20000531
DE 19925073	A1	DE 1999-1025073	19990601
AU 2000055277	A	AU 2000-55277	20000531
EP 1100958	A2	EP 2000-940297	20000531
		WO 2000-EP5020	20000531
DE 19925073	C2	DE 1999-1025073	19990601
JP 2003501050	W	WO 2000-EP5020	20000531
		JP 2001-500811	20000531

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000055277	A	Based on	WO 2000073501
EP 1100958	A2	Based on	WO 2000073501
JP 2003501050	W	Based on	WO 2000073501

PRIORITY APPLN. INFO: DE 1999-19925073 19990601
AB WO 200073501 A UPAB: 20010126
NOVELTY - Isolating nucleic acid (I) that interact with native PrPsc (**protease**- sensitive isoform of **prion** protein) and differentiates between the PrPsc and PrPc isoforms comprises incubating a pool of nucleic acids with a purified PrPsc preparation, selecting and isolating any protein-nucleic acid complexes formed, repeating the incubation/isolation as necessary, and amplifying the isolated nucleic acids.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) (I) isolated this way or obtained from pCIneo-PPP-I (DSM 12753);

(b) antisense RNA (II), to (I);

(c) pharmaceutical composition containing (I) or (II) and optionally carriers and/or auxiliaries;

(d) diagnostic composition containing (I) or (II);

(e) inorganic or organic compounds (III), other than nucleic acids, having a structure that is based on information in the three-dimensional structure of (I) or (II); and

(f) method of screening macromolecules for selective binding to PrPsc under native conditions.

ACTIVITY - Antiprion.

MECHANISM OF ACTION - (I) suppress production of PrPsc in affected cells. Scrapie-infected neuroblastoma cells were transformed with pCIneo-PPP-I (containing the cDNA for a 112-mer RNA aptamer specific for PrPsc). After 48 hour, the cells were lysed and analyzed by Western blotting; PrPsc could not be detected, showing that the aptamer was interacting with native PrPsc.

USE - (I), and related antisense RNA, are used (i) to treat transmissible **spongiform encephalopathies** (TSE) in animals and humans or (ii) to diagnose TSE by detection of PrPsc in body fluids.

Dwg.0/7

ABEX UPTX: 20010126

SPECIFIC OLIGONUCLEOTIDES - Two RNA sequences are specifically claimed, e.g. 5'-GGCAAAGGCGGGAAAGCGUGCUAACGUGGAAAGCUACUCCCACGUUGUACGCGUCGCAGAUCAUUG AGUGAGG.

ADMINISTRATION - (I) are administered orally and parenterally. No doses are suggested.

EXAMPLE - No suitable example given.

L63 ANSWER 60 OF 60 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-679516 [66] WPIX
DOC. NO. NON-CPI: N2000-503019
DOC. NO. CPI: C2000-206661
TITLE: Typing, **diagnoses**, prevention and/or treatment of **prion** disease e.g. **spongiform encephalopathies** using binding of metal ions to PrP(SC).
DERWENT CLASS: B04 S03
INVENTOR(S): COLLINGE, J; WADSWORTH, J D F
PATENT ASSIGNEE(S): (IMCO-N) IMPERIAL COLLEGE INNOVATIONS LTD; (DGED-N) D-GEN LTD
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000062068	A1	20001019	(200066)*	EN	49
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000038291	A	20001114	(200108)		
EP 1169644	A1	20020109	(200205)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
BR 2000009675	A	20020326	(200229)		
JP 2002541480	W	20021203	(200309)		42
NZ 514691	A	20040227	(200418)		
AU 773102	B2	20040513	(200462)		
US 6887676	B1	20050503	(200530)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000062068	A1	WO 2000-GB1327	20000407
AU 2000038291	A	AU 2000-38291	20000407
EP 1169644	A1	EP 2000-917200	20000407
		WO 2000-GB1327	20000407
BR 2000009675	A	BR 2000-9675	20000407
		WO 2000-GB1327	20000407
JP 2002541480	W	JP 2000-611080	20000407
		WO 2000-GB1327	20000407
NZ 514691	A	NZ 2000-514691	20000407
		WO 2000-GB1327	20000407
AU 773102	B2	AU 2000-38291	20000407
US 6887676	B1	WO 2000-GB1327	20000407
		US 2002-958517	20020212

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000038291	A	Based on	WO 2000062068
EP 1169644	A1	Based on	WO 2000062068
BR 2000009675	A	Based on	WO 2000062068
JP 2002541480	W	Based on	WO 2000062068
NZ 514691	A	Based on	WO 2000062068
AU 773102	B2	Previous Publ.	AU 2000038291
		Based on	WO 2000062068
US 6887676	B1	Based on	WO 2000062068

PRIORITY APPLN. INFO: GB 1999-8059 19990409

AB WO 200062068 A UPAB: 20001219

NOVELTY - Typing PrPsc comprises (a) treating a sample containing a PrPsc protein to remove one or more bound metal ions from PrPsc; (b) digesting PrPsc protein; and (c) comparing the products of the digestion with the products of a control method in which the sample is not treated to remove bound metal ions, any difference being indicative of the presence of type 1 or type 2 PrPsc and no difference being indicative of type 3 or type 4 PrPsc.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (i) a method of altering the conformation of PrPsc comprising treating PrPsc with an agent which affects the binding of PrPsc to one or more divalent metal ions; (ii) use of an agent capable of affecting the binding of PrPsc to one or more divalent metal ions in the manufacture of a composition for use in the prevention, treatment and/or diagnosis of a **prion** disease; (iii) a method for screening for an agent capable of altering the conformation of type 1 and/or type 2 PrPsc comprising (a) exposing type 1 and/or type 2 PrPsc to the agent; (b) digesting the PrPsc; (c) comparing the digestion products with products produced under the same conditions in the absence of the agent, a difference being indicative of a change in the conformation of type 1 and/or type 2 PrPsc; (iv) a method for screening for an agent for use in the diagnosis, prevention and/or treatment of a **prion** disease comprising testing an agent for its ability to convert type 1 PrPsc to type 2 PrPsc or type 2- PrPsc or vice versa and/or type 2 PrPsc to type 2- PrPsc or vice versa; (v) isolated PrPsc type 2- which when digested produces the same digestion products as type 1 and/or type 2 PrPsc which have been treated prior to digestion to remove one or more bound metal ions; and (vi) use of isolated PrPsc type 2- in the manufacture of a medicament for use in the manufacture of a composition for use in the diagnosis, prevention and/or treatment of a **prion** disease.

ACTIVITY - Neuroprotective.

MECHANISM OF ACTION - None given.

USE - For typing, diagnoses, prevention and/or treatment of **prion** disease e.g. **spongiform encephalopathies** such as **Creutzfeldt-Jakob** disease and bovine **spongiform encephalopathy**.

Dwg.0/4

ABEX UPTX: 20001219

ADMINISTRATION - Administration is orally, topically or parenterally. No dosage is given.

EXAMPLE - No specific example is given.

=> file home
FILE 'HOME' ENTERED AT 15:55:10 ON 18 MAY 2005

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=> d his

     (FILE 'HOME' ENTERED AT 14:45:20 ON 18 MAY 2005)

     FILE 'CAPLUS' ENTERED AT 14:45:28 ON 18 MAY 2005
               E US2001-778926/AP
L1             1 S E3

     FILE 'ZCAPLUS' ENTERED AT 14:47:00 ON 18 MAY 2005
               E PRION DISEASES+ALL/CT
               E PRION PROTEINS+ALL/CT
               E SPONGIFORM ENCEPHALOPATHY/CT
               E E3+ALL
               E E2+ALL
               E CREUTZFELDT-JAKOB/CT
               E E5+ALL
               E E3+ALL
               E PROTEASE+ALL/CT
               E E2+ALL
               E PROTEINASE K+ALL/CT
               E DIAGNOSIS+ALL/CT
               E GEL ELECTROPHORESIS+ALL/CT

     FILE 'REGISTRY' ENTERED AT 15:00:49 ON 18 MAY 2005
               E 9001-92-7
L2             1 S E3
               E 39450-01-6
L3             1 S E3

     FILE 'HCAPLUS' ENTERED AT 15:02:42 ON 18 MAY 2005
L4       3665680 S L2 OR APL 901 OR AS 10 OR AS.398 OR DA 10 OR PROTEINASE
L5          4239 S L3 OR PROTEINASE, TRITIRACHIUM ALBUM SERINE OR (PROTEASE OR P
L6          2812 S PRION DISEASES+PFT/CT
L7          4284 S PRION PROTEINS+PFT/CT
L8          1832 S SPONGIFORM (1A) ENCEPHAL?
L9          1490 S CREUTZFELDT JAKOB
L10        64645 S DIAGNOSIS+PFT/CT
L11        15047 S GEL ELECTROPHORESIS+PFT/CT
L12            5 S L4-L5 AND L6-L9 AND L10 AND L11
L13         4982 S PRION/CW
L14       142360 S GLYCOPROTEIN OR GLYCOFORM
L15           12 S L13 AND L14 AND L8-L9 AND L10
L16           10 S L15 NOT (RGM OR HUMORAL)/TI

     FILE 'MEDLINE' ENTERED AT 15:15:53 ON 18 MAY 2005
L17         8284 S PRION DISEASES+NT/CT
L18         1353 S ENDOPEPTIDASE K+NT/CT
L19      1314458 S L4
L20         2863 S L5
L21       277860 S ELECTROPHORESIS+NT/CT
L22           50 S L17 AND L18-L20 AND L21
L23         6917 S L17/MAJ
L24           43 S L23 AND L18-L20 AND L21
L25           22 S L24 AND PY>1997
L26           21 S L24 NOT L25

     FILE 'BIOSIS' ENTERED AT 15:27:13 ON 18 MAY 2005
L27         6296 S PRION (1A) (PROTEIN OR DISEASE)
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L28          3138 S SPONGIFORM (1A) ENCEPHAL?
L29          3569 S CREUTZFE? JAK?
L30           167 S MAD COW
L31         88175 S PROTEINASE K OR PROTEASE OR ENDOPEPTIDASE K
L32        196644 S ELECTROPHORESIS
L33       3671178 S DIAGNOS? OR DETECT? OR FIND? OR LOCAT? OR IDENTIF?
L34       1352076 S L4
L35          3505 S L5
L36            37 S L27-L30 AND (L31 OR L34 OR L35) AND L32
L37            23 S L36 AND PY>1997
L38            14 S L36 NOT L37

     FILE 'EMBASE' ENTERED AT 15:34:45 ON 18 MAY 2005
               E PRION DISEASE+NT/CT
               E PROTEINASE K+NT/CT
               E ENDOPEPTIDASE K/CT
               E E3+ALL
               E ELECTROPHORESIS+NT/CT
L39          7129 S PRION DISEASE+NT/CT
L40           933 S PROTEINASE K/CT
L41         70168 S L4
L42          2608 S L5
L43        100935 S ELECTROPHORESIS+NT/CT
L44            28 S L39 AND L40-L42 AND L43
L45            20 S L44 AND PY>1997
L46             8 S L44 NOT L45
L47             5 S L46 NOT (MINK OR CONSERV? OR NOVEL)/TI

     FILE 'WPIX' ENTERED AT 15:41:26 ON 18 MAY 2005
L48          1328 S PRION
L49           537 S SPONGIFORM (1A) ENCEPHAL?
L50           642 S CREUTZ? JAK?
L51         15775 S PROTEASE OR (PROTEINASE OR ENDOPEPTIDASE) (W) K
L52       2950493 S L4
L53           419 S L5
L54         17023 S ELECTROPHOR?
L55       2220066 S DIAGNOS? OR DETECT? OR FIND? OR LOCAT? OR IDENTIF? OR FOUND O
L56            30 S L48-L50 AND L51-L53 AND L54
L57            29 S L56 AND PRY>1997
L58             1 S L56 NOT L57
L59            28 S L48-L50 AND L51-L53 AND L54 AND L55
L60            14 S L48-L50 AND L51-L53 AND L54 AND L55/TI

     FILE 'HCAPLUS' ENTERED AT 15:51:08 ON 18 MAY 2005
L61            14 S L12 OR L16

     FILE 'MEDLINE' ENTERED AT 15:51:30 ON 18 MAY 2005

     FILE 'BIOSIS' ENTERED AT 15:51:36 ON 18 MAY 2005

     FILE 'EMBASE' ENTERED AT 15:51:42 ON 18 MAY 2005

     FILE 'WPIX' ENTERED AT 15:51:56 ON 18 MAY 2005
L62            14 S L58 OR L60

     FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIX' ENTERED AT 15:53:30 ON 18
     MAY 2005
L63            60 DUP REM L26 L61 L38 L47 L58 L62 (9 DUPLICATES REMOVED)
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      FILE 'HOME' ENTERED AT 15:55:10 ON 18 MAY 2005

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